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ABSTRACT

The relationship between the black student percentage and white students' hostility toward blacks in desegregated schools was investigated through secondary analysis of data from a nationwide survey of desegregated elementary schools. Previous studies have indicated that whites are more hostile toward blacks in settings where the black percentage is higher. It is inferred from such studies that whites perceive the percentage of blacks as a threat to their control of desegregated settings. This study explored the viability of the control threat concept in the black percentage/white hostility relationship. The analysis concluded that: (1) a unique relationship can be found between the black percentage and white hostility, after five other contextual variables are partialed out. The relationship may be stronger in schools where the status threat imposed by blacks is stronger, where traditional racial norms are stronger, and where friendship networks are more likely to be racially separate; (2) the investigated relationship appears stronger in schools where white control, as indicated by other control relevant variables, is relatively weak; (3) these relationships are generally nonlinear and of the inverted U form, meaning that on the whole, white hostility appears to be highest in schools that are between 40 percent to 60 percent black. (Author/MJL)

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UNIVERSITY OF CALIFORNIA

Los Angeles

School Racial Composition and Intergroup Hostility:
The Control Threat in Desegregated Schools

A dissertation submitted in partial satisfaction of the
requirements for the degree Doctor of Philosophy
in Sociology

by

Douglas Yale Longshore

1981

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The dissertation of Douglas Yale Longshore is approved.

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To Ken Havrilla

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ABSTRACT OF THE DISSERTATION

School Racial Composition and Intergroup Hostility:
The Control Threat in Desegregated Schools

by

Douglas Yale Longshore
Doctor of Philosophy in Sociology
University of California, Los Angeles, 1981
Professors Melvin Seeman and Gerald Shure, Co-Chairs

Previous studies indicate that Whites are more hostile toward Blacks in settings where the percentage of Blacks is higher. The inference often drawn from such studies is that Whites perceive the Black percentage as a threat to their control of desegregated settings. In a secondary analysis of data collected for an evaluation of the Emergency School Aid Act, this research explores the relationship between the school Black percentage and White students' hostility toward Blacks, using a nationwide sample of desegregated elementary schools. The analysis indicates that White students may be most hostile toward Blacks in schools between 40% to 60% Black; that is, Whites may be most hostile when neither racial group is clearly in control of the school. This pattern persists when contextual variables that represent constructs other than the control threat to Whites are partialed out, viz., the status threat posed by Blacks (school SES), the strength of traditional racial norms (ruralism, region, and sub-region of the South), and the likelihood that school friendship networks are racially separate (school size). Further, the relationship between the Black percentage and White hostility appears to be stronger in schools where White control, as indicated by other control-relevant variables (the extent of Black busing to the school, classroom resegregation, and staff racial composition), is relatively weak. Because the relationships are not strong and because there are exceptions to the overall patterns, the findings are disputable and should be considered tentative. Implications of the findings for theory, policy, and future research are discussed.

OVERVIEW

This work examines the relationship between the Black percentage and White students' hostility toward Blacks in desegregated schools. In a preliminary discussion of the background for this research, Chapter 1 reports that previous studies in desegregated schools and in other settings have found a positive relationship between the Black percentage and White hostility toward Blacks. Most of these studies did not examine the possibility that this relationship is nonlinear. But among those studies that have examined that possibility, two substantively different forms of nonlinearity have emerged. One form is the J-curve, in which White hostility sharply intensifies in settings past 20% to 40% Black. The other form is the inverted-U, in which White hostility peaks in settings near 50% Black and then declines.

Chapter 2 discusses the explanations that have been offered for such findings. Generally, it has been argued that Whites perceive a greater threat to their control in settings where the Black percentage is higher. Regarding the specific feature of nonlinearity in the relationship between the Black percentage and White hostility, researchers have explained the J-curve form by arguing that White hostility accelerates in settings past 20% to 40% Black because the control threat is much more salient for Whites in such settings. To explain the inverted-U form, it has been argued that White hostility is highest in settings near 50% Black because the control threat is most salient when control of the setting is most in doubt.

A key topic in Chapter 2 is Blalock's (1967) account of the control threat, in which he identified four assumptions underlying the expectation of a J-curve relationship between the Black percentage and White hostility in Southern electoral politics. Those assumptions are: Whites are able to mobilize resources for control as effectively as they would like; Whites are motivated to maintain rougly the same advantage over Blacks as the Black percentage increases; the issue on which a control threat is perceived is a binary issue (e.g., a yes/no referendum); and the resources available to each group for control of the setting are additive. A fifth assumption seems implicit in Blalock's work, viz., that Whites' motivation to maintain control of desegregated settings is at least in part a sign of White hostility toward Blacks (as distinct from Whites' fear of Blacks and from motives that are not racial). It is argued in Chapter 2 that all of these assumptions except the second (regarding the motivation to seek a constant White advantage over Blacks) seem applicable to explanations of the control threat other than Blalock's explanation, i.e., explanations for the positive linear or inverted-U relationship between the Black percentage and White hostility. Accordingly, all assumptions except the second are adopted in the present research.

Chapter 2 also defends the application of the control-threat concept to White students' hostility in desegregated schools. Consistent with previous research regarding the matter of control or "turf" in desegregated schools, it is argued that racial proportions appear to be a key resource for control in such schools. But other control-relevant variables have also emerged from previous research, including:

the racial composition of the school staff, the degree of resegregation at the classroom level, the proportion of Blacks who are bused to the school, and the pre-desegregation racial status of the school (all-Black or all-White). The relevance of these variables for control lies in the fact that they serve to reinforce or undercut status distinctions between White and Black students in the school and/or suggest the likelihood of racial differences in the equitability of discipline policies, in teacher/student interaction, and in students' access to extracurricular activities.

As background for the present study, Chapter 3 provides a detailed review of previous studies of the relationship between the Black percentage and four indicators of White hostility: the electoral behavior of Whites in the South, White resistance to school desegregation, White flight from desegregated schools and neighborhoods, and White students' hostility (racial attitudes and sociometric choices) in desegregated schools. As noted above, these studies have consistently demonstrated a strong relationship between the Black percentage and White hostility. Studies that have examined the possibility of nonlinearity in the relationship between these two variables have most often found the J-curve form of nonlinearity. However, the only study that examined this possibility for White students' hostility in desegregated schools (Bullock, 1976) found the inverted-U form. Finally, Chapter 3 identifies contextual variables other than the Black percentage which are also typically related to White hostility: the socio-economic status (SES) of the setting, school size, ruralism, region, sub-region of the South, region of the state,[1] recent increase in the Black percentage, suburb/city differences in tax revenues, suburb/city differences in educational expenditures, and the "friends and neighbors" vote (i.e., the tendency to vote for a local candidate regardless of his/her position on campaign issues).

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[1] This variable emerged in a study of Black voter registration in Louisiana. The northern part of the state is predominantly Protestant; the southern part, Catholic.

On the basis of exposition in these early chapters, it is argued that further research on the relationship between the Black percentage and White hostility should address at least three needs. First, it is noted that previous studies have not yet demonstrated a unique relationship between the Black percentage and White hostility, i.e., a relationship that is sustained after other contextual variables that are also related to White hostility have been partialed out of the relationship. These variables are usually taken to represent constructs other than the control threat to Whites. For example, school SES is taken to represent the status threat posed by Blacks in desegregated settings. Thus, isolation of the unique relationship between the Black percentage and White hostility would suggest whether White hostility is in fact a response (at least partly) to the control threat posed by the Black percentage.

Second, it is argued that if the Black percentage does represent a control threat to Whites, control-relevant variables other than the Black percentage ought to affect the relationship between the Black percentage and White hostility. Specifically, it is predicted that (1) the relationship between the Black percentage and White hostility should be stronger in settings where White control, as indicated by other control-relevant variables, is relatively weak; and (2) nonlinearity (if any) in this relationship ought to emerge at a higher

Black percentage (or not emerge at all) in settings where White control, as indicated by other control-relevant variables, is relatively strong.

Third, it is argued that previous research has provided no clear indication of the form of the relationship between the Black percentage and White students' hostility toward Blacks in desegregated schools. That is, the single study (Bullock, 1976) that checked for nonlinearity in this relationship does not provide an adequate basis for inferring whether the control threat in desegregated schools generally (1) becomes more salient as the Black percentage increases across its full range (the J-curve form), (2) is most salient in schools near 50% Black (the inverted-U form), or (3) varies in some other form.

Chapters 4 and 5 describe the data base for, and results of, this research. The data were originally collected in 1978-79 as part of an evaluation of the Emergency School Aid Act (ESAA). The evaluation surveyed 123 elementary schools in all parts of the country, gathering information on school contextual conditions, school policies, and student intergroup attitudes and behavior. The present research employs these data to explore the viability of the control-threat concept, addressing the three needs cited above. In brief, the conclusions are as follows. First, a unique relationship is found between the Black percentage and White hostility, after five other contextual variables are partialed out. These variables (and the constructs which they are taken to represent) are: school SES (the status threat posed by Blacks); ruralism, region, and sub-region of the South (the strength of traditional racial norms); and school size (the likelihood that friendship networks at the school are racially separate). Although this finding is open to alternative interpretations, it is consistent with the inference that White students' hostility toward Blacks is, in fact, partly a response to the control threat posed by the Black percentage in desegregated schools. Analyses are also conducted within contextual subsets of schools, viz., low-SES and high-SES schools, large and small schools, rural and urban schools, Southern and non-South schools, and deep-South and upper-South schools. These contextual analyses indicate that the relationship between the Black percentage and White hostility may be stronger in schools where the status threat posed by Blacks is stronger, in schools where traditional racial norms are stronger, and in schools where friendship networks are more likely to be racially separate.

Second, the relationship between the Black percentage and White hostility appears stronger in schools where White control (as indicated by other control-relevant variables) is relatively weak. These other control-relevant variables are: staff racial composition, the extent of Black busing, and the extent of classroom-level resegregation. The absence of significant relationships in the strong-control schools precluded a test of the prediction that the relationship between the Black percentage and White hostility will peak at a higher Black percentage (or remain linear) in schools where White control is otherwise strong.

Third, these relationships are generally nonlinear in the inverted-U form. That is, on the whole, White hostility appears to be highest in schools between 40% to 60% Black. As noted in Chapter 5, however, the results are not wholly consistent with this characterization of the form of the relationship. Hence, this third conclusion is disputable and must be regarded as quite tentative.

Chapter 6 discusses the limitations of these data and their implications for racial quotas in desegregated schools and for future research. It is argued that the findings should be considered tentative because alternative explanations cannot be ruled out and because the credibility and generalizability of the data are open to question. Also, it is argued in Chapter 6 that the data raise doubts about the advisability of maximal Black quotas in desegregated schools, since White hostility appears to be relatively high in racially balanced schools but is not so high in predominantly Black schools. Finally, possibilities for future research are identified, with particular attention to longitudinal and quasi-experimental research on the relationship between the Black percentage and White hostility.

CHAPTER 1. INTRODUCTION

This research examines the relationship between the Black percentage and White students' hostility toward Blacks in desegregated schools. Previous studies in a variety of desegregated settings have found a positive relationship between the Black percentage and White racial hostility. Many of these studies (e.g., Matthews & Prothro, 1963; Giles, 1978) have located a point of acceleration in this relationship--a specific Black percentage at which White hostility sharply intensifies--usually between 20% to 40% Black. Another study (Bullock, 1976) found that White hostility in Georgia high schools increased to a peak between 51%-60% Black and then declined past that point. (Since the decline past 60% Black was not as steep as the increase under 51% Black, the linear relationship between the Black percentage and White hostility remained positive.)

To explain such findings, researchers usually argue that Whites perceive a greater threat to their control in desegregated settings where the Black percentage is higher. That is, the Black percentage is said to represent a specific explanatory construct, viz., the control threat posed by Blacks. White hostility may accelerate in settings over 20% to 40% Black (the "J-curve" form of nonlinearity) because the control threat is increasingly salient for Whites in such settings. Alternatively, White hostility may increase as the Black percentage increases up to 50% and then decline past that point (the "inverted-U" form) because the control threat is most salient when control of the setting is in doubt.

However, contextual variables representing constructs other than the threat to White control could account for the observed relationship between the Black percentage and White hostility or for either form of nonlinearity in that relationship. Such variables include, for example, region (South vs. non-South) and ruralism, which are usually taken to represent the strength of traditional norms regarding race. But no previous study has determined whether the Black percentage is positively and/or nonlinearly related to White hostility after such variables are considered (e.g., partialed out of the relationship). Nor has any previous study determined whether the relationship between the Black percentage and White hostility is affected by the presumed level of White control in schools, as indicated by "control-relevant" variables other than the Black percentage (e.g., the racial composition of the school staff). Finally, no study except Bullock's has looked for nonlinearity in the relationship between the school Black percentage and White students' hostility toward Blacks. Thus, it is not known whether nonlinearity (if any) in this relationship generally follows the inverted-U form which Bullock found or the J-curve form which has most frequently been found in studies of White hostility in other settings.

The present research addresses all three of those needs. First, the present research controls for variables that represent constructs other than the control threat to Whites, to isolate the unique relationship[1] between the Black percentage and White hostility. Second, the research identifies other control-relevant variables in desegregated schools, to see whether the effect of those variables on the relationship between the Black percentage and White hostility is predictable on the basis of a control-threat interpretation. Third, the research determines whether nonlinearity (if any) in the relationship between the Black percentage and White students' racial hostility shows a continued acceleration past 20% to 40% Black (the J-curve form) or peaks near 50% Black and then declines (the inverted-U form). Details regarding the rationale for, and design of, this research are described in the next sections.

BACKGROUND

Research in American race relations indicates that Whites are more hostile toward Blacks in settings where the percentage of Blacks is higher. This generalization has emerged from studies of White electoral behavior in the South (e.g., Wasserman & Segal, 1973; Wright, 1977), studies of White resistance to school desegregation (e.g., Dye, 1968; Pettigrew & Cramer, 1959), studies of White flight from desegregated schools and neighborhoods (e.g., Giles, 1978, Pryor, 1971), and studies of the racial attitudes and sociometric choices of White students in desegregated schools (e.g., Fairchild, 1977; Shaw, 1973). For example, in cross-sectional studies of White opposition to Black voting (e.g., Matthews & Prothro, 1963), opposition has been stronger in Southern counties with a higher Black percentage. In longitudinal studies of White flight (e.g., Wegmann, 1975), the rate of White flight has increased as the percentage of Blacks in the school or neighborhood has increased over time.

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[1] The term "unique relationship" refers to the partial coefficient for the Black percentage in a regression of White hostility on the Black percentage and other contextual variables. This coefficient will indicate the predictive power of the Black percentage with the other predictors held constant (Kerlinger & Pedhazur, 1973). It should be noted that this coefficient is "unique" only with respect to the other predictors in the regression and may therefore not be unique with respect to possible predictors of White hostility that are omitted from the regression.

Some of these studies have indicated that the relationship between the Black percentage and White hostility is not linear. Instead, at least two forms of nonlinearity have emerged.[2] In the first form, White hostility has sharply intensified at some specific Black percentage. For example, in some studies of White opposition to Black voting (Matthews & Prothro, 1963, 1966; Price, 1957), White opposition has been _much_ stronger in counties above a certain Black percentage. And in some studies of White flight (e.g., Duncan & Duncan, 1957), White flight has sharply accelerated among schools or neighborhoods past a certain Black percentage. This percentage has usually been located somewhere between 20% to 40% Black. Figure 1.1 is a schematic representation of this J-curve form of nonlinearity.

The second form of nonlinearity appeared in a study of White students' hostility toward Blacks in desegregated schools (Bullock, 1976). In this study, White hostility increased as the Black percentage approached 51-60% Black but then _decreased_ past that point. Figure 1.2 is a schematic representation of this inverted-U form of nonlinearity.

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[2] A third form of nonlinearity has emerged in a few studies, but it is apparently an artifact of circumstances which are peculiar to those studies. This third form of nonlinearity is discussed in Chapter 3.

(Since, in this form, White hostility in majority-Black schools is higher than it is in majority-White schools, the linear relationship between the Black percentage and White hostility is still positive).

To explain the positive relationship between the Black percentage and White hostility, most scholars have argued that Whites perceive a greater threat to their control in desegregated settings where the percentage of Blacks is higher. That is, the Black percentage is taken as a proxy for a specific explanatory construct--the perceived threat to White control. "Control," as conceptualized in most studies, is the ability of one racial group to regulate the behavior or choices of another racial group.[3] According to previous research (e.g., Rose, 1972; Drake & Cayton, 1945), Whites assess their control on the basis of indicators such as: which group regulates access to certain facilities and activities (e.g., bars and playgrounds), which group's candidates or interests most often prevail in elections, and which group's cultural values seem pre-eminent in the setting (e.g., types of food served in restaurants and types of music played in the school cafeteria).

To explain nonlinearity in the relationship between the Black percentage and White hostility, scholars have posited each nonlinear form as a special case of Whites' response to the control threat posed by Blacks (e.g., Bullock, 1976; Downs, 1970; Kerckhoff, 1957; McDermott & Clark, 1955). Specifically, to explain a sharp upswing in White hostility, some scholars have argued that in settings between 20% to

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[3] This definition of control closely parallels Cohen's (1980) definition of power in desegregated schools. It also parallels Schermerhorn's (1956) broader definition of power in intergroup relations: "the asymmetrical relationship between two [groups] in which a perceptible probability of decision resides in one of the two [groups], even over the resistance of the other [group]" (Schermerhorn, 1956:54).

40% Black many Whites believe that Blacks are starting to take over. Consequently, Whites step up their own efforts to control the setting, or they rapidly abandon it. On the other hand, to explain the decline in White hostility past 50% Black, Bullock (1976) argued that White hostility is highest when control of the setting is in dispute. In settings past 50-60% Black, control is clearly held by Blacks, and most Whites resign themselves to that fact. These two forms of nonlinearity, and the use of "control" as an explanatory concept in White hostility, will be covered in more detail in Chapter 2.

To summarize this introductory discussion, the Black percentage is said to operate as a salient contextual characteristic of desegregated settings. Thus, in settings where the Black percentage is higher, White hostility toward Blacks is higher. Sometimes the relationship between the Black percentage and White hostility has taken one of two nonlinear forms, the J-curve form or the inverted-U form. But whether nonlinearity has emerged or not, the proferred explanation for the relationship centers on the concept of a control threat in desegregated settings.[4]

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[4] The variables cited in previous studies--White electoral behavior, White resistance to school desegregation, White flight, and White racial attitudes and sociometric choices--are of course not "pure" indicators of White racial hostility. For example, part of the variation in White flight is apparently a function of White income level, fear of declining property values, and other factors. And part of the variation in White racial attitudes is apparently a function of class prejudice and peer influences. But this dissertation, like previous studies, assumes that at least a good part of the variation in White electoral behavior, White flight, and the like, represents White hostility and that these variables are, accordingly, useful as indicators of White hostility. This point is developed further in Chapter 2.

It should also be noted here that these indicators of White hostility include (1) variables that measure actual efforts to maintain control of desegregated settings (e.g., suppression of Black voter registration) and (2) variables that simply measure White hostility toward Blacks in settings where control is an issue (e.g., verbal opposition to Black voting or unfriendly behavior toward Blacks in desegregated schools).

The research on which this dissertation is based focuses on the relationship between the Black percentage and White students' hostility toward Blacks in desegregated schools, with particular attention to the possibility of nonlinearity in that relationship. The rationale for this research is that, despite the consistently positive relationship between the Black percentage and various indicators of White hostility, the causal significance of the Black percentage is not convincingly supported in previous studies.[5] This research explores the causal significance of the Black percentage in three ways. First, it examines the relationship between the Black percentage and White hostility, with controls for contextual variables that represent constructs other than the control threat to Whites. Second, it examines that relationship in schools where White control, as indicated by variables other than the Black percentage, is high or low. Third, it checks for the possibility that White hostility sharply intensifies in schools past 20% to 40% Black or, alternatively, peaks in schools near 50% Black and then declines.

RATIONALE

Some studies have reported the relationship between the Black percentage and White hostility and the occurrence of nonlinearity in that relationship as more than just empirically derived generalizations.

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[5] The causal significance of a variable is perhaps most clearly established through an experimental design. This research is not intended to demonstrate the causal significance of the Black percentage. Rather, it is intended to explore the viability of the inference that the Black percentage is causally related to White hostility.

In both scholarly and popular accounts, these generalizations have sometimes been described explicitly as "laws" of human behavior.[6] Drawing on earlier work by Williams (1947), Allport observed that White hostility is most intense when the "Negro density" is highest and characterized that relationship as a "sociocultural law" (Allport, 1958: 220-221). More recently, Ehrlich posited a "principle of visibility" in race relations (Ehrlich, 1973: 77), whereby increases in the visibility of a racial/ethnic group produce greater social distance between it and other groups. The relative size of the group was said to be one determinant of its visibility.

Likewise, nonlinearity (more specifically, the J-curve form) in the relationship between the Black percentage and White hostility has been described as an inevitable consequence of desegregation when the percentage of Blacks exceeds a certain point. Downs (1970) has described Whites' preference for majority-White schools and neighborhoods as the "law of dominance."

> "A vast majority of whites...would be willing to send their children to integrated schools or live in integrated neighborhoods, as long as they were sure that [Whites] would remain in the majority...These Whites... want to be sure that the social, cultural, and economic milieu and values of their own group dominate their... environment" (Downs, 1970: 34; emphasis his).

Grodzins (1957) reported that:

> "White residents who will tolerate a few Negroes as neighbors...begin to move out when the proportion of

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[6] Historian C. Vann Woodward has been highly critical of the "popular and rather cynical" explanation of White racial hostility "entirely in terms of population ratio" (Woodward, 1964: 9). The extensive literature search on which Chapter 3 is based turned up no study reporting that White hostility is "entirely" a function of the Black percentage. Even so, Woodward's criticism of the unequivocal causal inference in some studies seems justified.

> Negroes in the neighborhood or apartment building passes a certain critical point. This 'tip point' varies from city to city and from neighborhood to neighborhood. But for the vast majority of white Americans a tip point exists. Once it is exceeded, they will no longer stay among Negro neighbors" (Grodzins, 1957: 34).

Struck by the implications of such definitive claims, policy-makers have urged the use of racial quotas in desegregated settings--usually somewhere between 15% and 50% Black. For example, the Chicago Housing Authority set quotas for its public housing projects during the 1940's and 1950's, ranging from 20% to 33% Black (Meyerson & Banfield, 1955; cf. also Molotch, 1972). Explicitly to attract White buyers, a private housing development in Philadelphia set a quota of 45% Black when the development opened in the 1950's (Grier & Grier, 1960). Also, in the widely known 1969 Geautreaux case, a federal court limited Black occupancy to 15% in four Chicago housing projects (Graham, 1974). And, in the 1973 Otero case, a New York state court allowed a housing project in the state to impose a quota of 45% Black (Alloca, 1975).

Policy-makers have also recommended racial quotas for desegregated schools, to avoid triggering massive White flight and to avoid an intensification of White students' racial hostility. Giles et al. (1975) suggested a quota of 30% Black to avoid an acceleration in White flight from desegregated schools.

> "Setting racial quotas may be an unsavory policy for some, but our findings suggest that it would be a rational policy from the standpoint of minimizing resegregation and producing stable desegregation" (Giles et al., 1975: 92).

New Orleans has, in fact, limited some of its schools to the 30% quota suggested by Giles et al., "to maximize integration without driving the whites out" (Guilory, 1971: 94-95). Similarly, the San Diego school system does not allow Whites to transfer from schools that are nearly 50% Black, because of the "danger of tipping" (Vollmer, 1978). And, in its ongoing court case, the Los Angeles School Board has argued that:

> "an optimum desegregated school is one with a minority population of not more than approximately 30%...Such a ratio will give minority students the maximum opportunity to integrate with white students...while at the same time tending to discourage white withdrawal from the school" (Los Angeles Unified School District, 1977: 12).

The California state court rejected that argument. But, in another ruling on school desegregation, a federal court in Indianapolis ordered a desegregation plan which included nearby suburban school districts, expressly to avoid "tipping" at 40% Black in the Indianapolis city schools (Georgetown Law Review, 1972). Finally, St. John (1975) has recommended that school enrollments be kept under 40% Black, not to preclude an acceleration in White flight but to preclude an intensification of White students' racial hostility. She argued that a Black enrollment over 40% would pose a "power threat" to Whites (St. John, 1975: 100).

Actually, claims regarding the causal significance of the Black percentage and the racial quotas based on such claims seem premature, for the causal link between the Black percentage and White hostility has not been convincingly supported and delineated in previous studies. This assertion is based on three points. First, it is not at all clear that the Black percentage accounts for any unique portion of the variance in White hostility after other contextual variables are controlled (e.g., partialed out or entered into a regression analysis). For example, the Black percentage and White hostility are both usually higher in settings that are Southern, rural, and low in aggregated socio-economic status (SES). Thus, region, ruralism, or SES could account for the positive relationship between the Black percentage and White hostility or for the occurrence of nonlinearity in that relationship. Some previous studies have, in fact, assessed the influence of other contextual variables, taken one or two at a time, on the relationship between the Black percentage and White hostility (e.g., Fairchild, 1977; Grunbaum, 1964). But no study has assessed the simultaneous influence of several such variables on that relationship.

Moreover, contextual variables that could account for the relationship between the Black percentage and White hostility apparently represent constructs other than the perceived threat to White control. Region and ruralism appear to represent the strength of traditional norms regarding racial prejudice and discrimination (e.g., Giles, 1977; Wright, 1976). SES (e.g., median county educational level) appears to represent the status threat which Blacks pose for Whites in desegregated settings (e.g., Thomas, 1979). Thus, partialing out such variables will not just indicate whether or not the Black percentage itself accounts for any variation in White hostility. Partialing out such variables will also clarify the causal significance of the Black percentage because it would remove the variation associated with variables that do not represent a control threat to Whites.[7]

Second, even if the Black percentage can account for some unique part of White hostility in desegregated settings, another question still remains: Does the Black percentage really represent a control threat to Whites? One way to support an affirmative answer to that question is to identify other variables that may also represent a control threat to Whites and then see whether the effect of those variables on the relationship between the Black percentage and White hostility is consistent with the control-threat concept. In desegregated schools, one variable other than the Black percentage which also seems relevant to White control is the racial composition of the school staff. White students apparently perceive that their control is stronger in schools where the staff is mostly White than in schools where the staff is racially balanced.[8] Thus, if the Black percentage is itself a "control-relevant" variable, its impact on White hostility should be affected by variation in the racial composition of the staff. Specifically, the relationship between the Black percentage and White students' hostility toward Blacks should be weaker in schools where the staff is mostly White than in schools where the staff is racially balanced because, in schools with a mostly White staff, the Black percentage is not so threatening to Whites. In that circumstance, Whites are more likely to perceive that the school, despite the percentage of Blacks enrooled, is still White "turf." For the same reason, among schools with a mostly White staff, nonlinearity in the relationship between Black percentage and White hostility might not emerge until such schools are well past 40% or even 50% Black. In fact, nonlinearity might not emerge at all, if the Black percentage in such schools (no matter how high its gets) never seriously threatens White control.[9] Empirical confirmation of these predictions would support the claim that the Black percentage represents a control threat to Whites. But no previous study of the relationship between the Black percentage and White hostility has taken other control-relevant variables into account.

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[7] The Black percentage does not, of course, represent "purely" the threat to White control. As Blalock (1967) has observed, when Whites believe that Blacks are competing with them for jobs, the Black percentage represents essentially an economic threat to Whites. And even when the Black percentage more clearly represents a control threat (as in electoral politics), the Black percentage is empirically linked to variables like region and ruralism, which suggests that the Black percentage also represents, to some extent, the constructs for which these other variables are proxies. In short, the Black percentage is part of a nexus of contextual conditions which are conceptually distinct but empirically tangled. This research attempts to overcome that problem. First, this research focuses on a setting (desegregated schools) in which the Black percentage primarily represents a control threat (as argued in Chapter 2). Second, this research removes the variation which the Black percentage shares with the other contextual variables identified above. In other words, this research attempts to estimate the relationship between the control threat posed by the Black percentage and White students' hostility toward Blacks.

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[8] This point, and the evidence on which it is based, are discussed at length in Chapter 2.

[9] In operational terms, the "weakness" of the relationship between the Black percentage and White hostility will depend on how widely points are scattered around the regression lines for schools where White control (as indicated by other control-relevant variables) is strong or weak. Specific predictions regarding nonlinearity depend on (1) which form of nonlinearity (if any) emerges and (2) whether any nonlinear relationship which does emerge is significant both in schools where White control is strong and in schools where White control is weak. With regard to the J-curve form, the expectation is that the point at which White hostility accelerates will be higher in schools where White control is strong. With regard to the inverted-U form, the expectation is that White hostility will peak at a higher Black percentage in schools where White control is strong. The essential substantive issue here is: Will Whites appear to be less sensitive to the Black percentage when White control is otherwise strong?

One could also argue that Whites will be more sensitive to the Black percentage when White control is otherwise strong. The logic here would be that the Black percentage is more threatening when Blacks are seen as invaders of a White-controlled setting. The analysis in Chapter 5 will determine which of these predictions (if either) is borne out here.

Finally, racial quotas ranging from 15% to 50% Black have been recommended and implemented in many desegregated settings. Most of these quotas are intended to preclude an acceleration in White flight, but in at least one case a 40% Black quota was recommended specifically to avoid an intensification in White students' hostility toward Blacks (St. John, 1975). It is not clear, however, that the relationship between the Black percentage and White students' hostility can be expected to accelerate across the full range of the Black percentage. Most examples of nonlinearity in White hostility show the J-curve form, that is, the form in which White hostility accelerates. But the only available example of nonlinearity in White students' hostility (Bullock, 1976) shows the inverted-U form, i.e., White hostility peaks near 50% Black and then declines. In other words, it is not clear that the J-curve form of nonlinearity, on which the policy of racial quotas has been based, is in fact applicable to White students' hostility in desegregated schools. If nonlinearity emerges in the inverted-U form, a reconsideration of policies regarding racial quotas to minimize White students' hostility would be in order.

RESEARCH DESIGN

This research constitutes a secondary analysis of data collected in 1978-79 as part of an evaluation of the Emergency School Aid Act.

The evaluation covered 123 desegregated elementary schools in all parts of the country. The data set for this evaluation includes six contextual variables:

(1) the school Black percentage (the key variable in this research);

(2) school SES (a composite of school means for students' verbal and math achievement, school means for parents' educational level, and school rates of eligibility for free or reduced-price school lunch services);

(3) school size;

(4) ruralism (district size);

(5) region (a dummy variable for South vs. non-South);

(6) sub-region of the South (a dummy variable for deep South vs. upper South).

The data set also includes three measures of White hostility toward Blacks:

(1) Whites' attitudes toward desegregation (a six-item scale measuring Whites' willingness to attend desegregated schools and their perceptions of the value of desegregated education);

(2) Whites' unfriendliness toward Blacks, as perceived by Blacks (a two-item scale asking Black students to assess how easy it is to make friends with Whites in the school);

(3) Whites' attitudes toward contact with Blacks (a three-item scale asking White students to predict their friends' reactions to contact with Blacks in voluntary social interaction).

Finally, the data set includes one measure of intergroup hostility, which is presumably a function of White and Black hostility. Specifically, this measure is the teachers' estimate of the level of intergroup conflict at the school.[10]

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[10] This measure is included in this research because it may be useful in interpreting the relationship between the Black percentage and White hostility. Details regarding the analysis of intergroup conflict appear in Chapter 5.

In the analysis of these data, White hostility is compared across schools with different percentages of Blacks enrolled. The possible causal significance of the Black percentage is examined, first by looking at the relationship between the Black percentage and White hostility after five contextual variables that represent constructs other than the threat to White control (i.e., variables other than the Black percentage) are partialed out of that relationship. The causal significance of the Black percentage is further examined by assessing the relationship between the Black percentage and White hostility in schools where other control-relevant variables indicate relatively strong White control and in schools where those variables indicate weak White control. Finally, the relationship between the Black percentage and White hostility is examined for evidence of nonlinearity--particularly for evidence of the J-curve form or the inverted-U form of nonlinearity. Figure 1.3 represents a summary of this research design.

Notably, this research offers an interesting comparison of three distinct perspectives on the origins of racial hostility. The notion of a control threat is integral to a perspective that focuses on power and competition between racial groups as determinants of hostility. The status threat is, on the other hand, integral to a perspective that focuses on class and status differences between racial groups. These two perspectives both employ the concept of social structure (or, more specifically, the individual's position within that structure) to explain some of the variation in racial hostility. Norms regarding race are integral to a third perspective, viz., the socialization perspective, which employs the concept of the transmission of norms to explain part of the variation in racial hostility.[11] In short, this research offers not just an exploration of the significance of the Black percentage. It also allows a comparison of the predictive power of variables representing constructs that are integral to three major perspectives on racial hostility. Those perspectives (with their associated variables) are: power/competition (the Black percentage), class/status differences (school SES), and socialization (region, subregion, and ruralism).

This dissertation is presented in five subsequent chapters. Chapter 2 handles the theoretical background by describing the control-threat concept in some detail, especially as it is applied to the two forms of nonlinearity that have emerged in the relationship between the Black percentage and White hostility. The chapter describes at length Blalock's (1967) account of White hostility in Southern electoral politics because that account represents the most detailed attempt in the literature to explain nonlinearity (specifically, the J-curve form) in the relationship between the Black percentage and White hostility. Chapter 2 then argues that Blalock's account can also be applied to White hostility in desegregated schools. Chapter 2 also provides part of the empirical background for this research, by identifying four variables which, in addition to the Black percentage, seem relevant to White control in desegregated schools. These variables are: the racial composition of the school staff, the extent of classroom resegregation, the extent of Black busing to the school, and the pre-desegregation racial status of the school (all-Black or all-White). As indicated above, the first three of these variables are available in this data set. Chapter 2 closes with predictions regarding the impact of these variables on the relationship between the Black percentage and White hostility. Specifically, it is predicted that in schools where these variables indicate stronger White control, the relationship between the Black percentage and White hostility will be weaker, and nonlinearity will either emerge at a higher Black percentage or not emerge at all.

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[11] Of course, other perspectives have been applied to the study of racial hostility, e.g., the psychodynamic perspective. But these three incorporate much of the sociological thought on the matter. These and other perspectives have been discussed at length in literature reviews on the origins of racial hostility, e.g., Allport (1958), Harding et al.,(1967), and Westie (1964).

Chapter 3 handles the remaining empirical background for this research by describing previous studies of the relationship between the Black percentage and White hostility. These studies have focused on four main indicators of White hostility: Whites' electoral behavior in the South, White resistance to school desegregation, White flight from desegregated schools and neighborhoods, and White students' racial attitudes and sociometric choices in desegregated schools. Chapter 3 also identifies other contextual variables which have influenced the relationship between the Black percentage and White hostility and specifies the constructs for which those contextual variables are taken as proxies. Five of the variables that have emerged most often in previous studies are (as indicated above) available in this data set: school SES, ruralism (district size), region (South vs. non-South), sub-region of the South (deep South vs. upper South), and school size. Controls for these variables will indicate whether or not the Black percentage accounts for any unique portion of the variance in White students' racial hostility. An examination of the relationship between the Black percentage and White hostility within certain subsets of schools (e.g., Southern schools, rural schools, low-SES schools) may identify particular contexts in which that relationship is strongest or in which nonlinearity most dramatically occurs.

Chapter 4 describes the purpose for which, and the procedures by which, the data were originally collected. The chapter then describes how the Black percentage, the other contextual variables, the other control-relevant variables, the measures of White hostility, and the measure of intergroup conflict were constructed for use in this research.

Chapter 5 presents the results of the data analysis. More specifically, Chapter 5 reports the bivariate relationships between the Black percentage and White hostility and between the Black percentage and intergroup conflict. The chapter then re-examines those relationships under controls for each of the five other contextual variables and checks for the possibility of nonlinearity in those relationships. Finally, Chapter 5 assesses the impact of the other control-relevant variables on those relationships.

Chapter 6 offers an interpretation of the findings and discusses their implications for policy and for future research. Their implications for policy center on the usefulness of racial quotas for minimizing White students' hostility toward Blacks in desegregated schools. Their implications for future research center on the need for more direct measures of control in desegregated schools and for longitudinal and quasi-experimental research on the relationship between the Black percentage and White hostility.

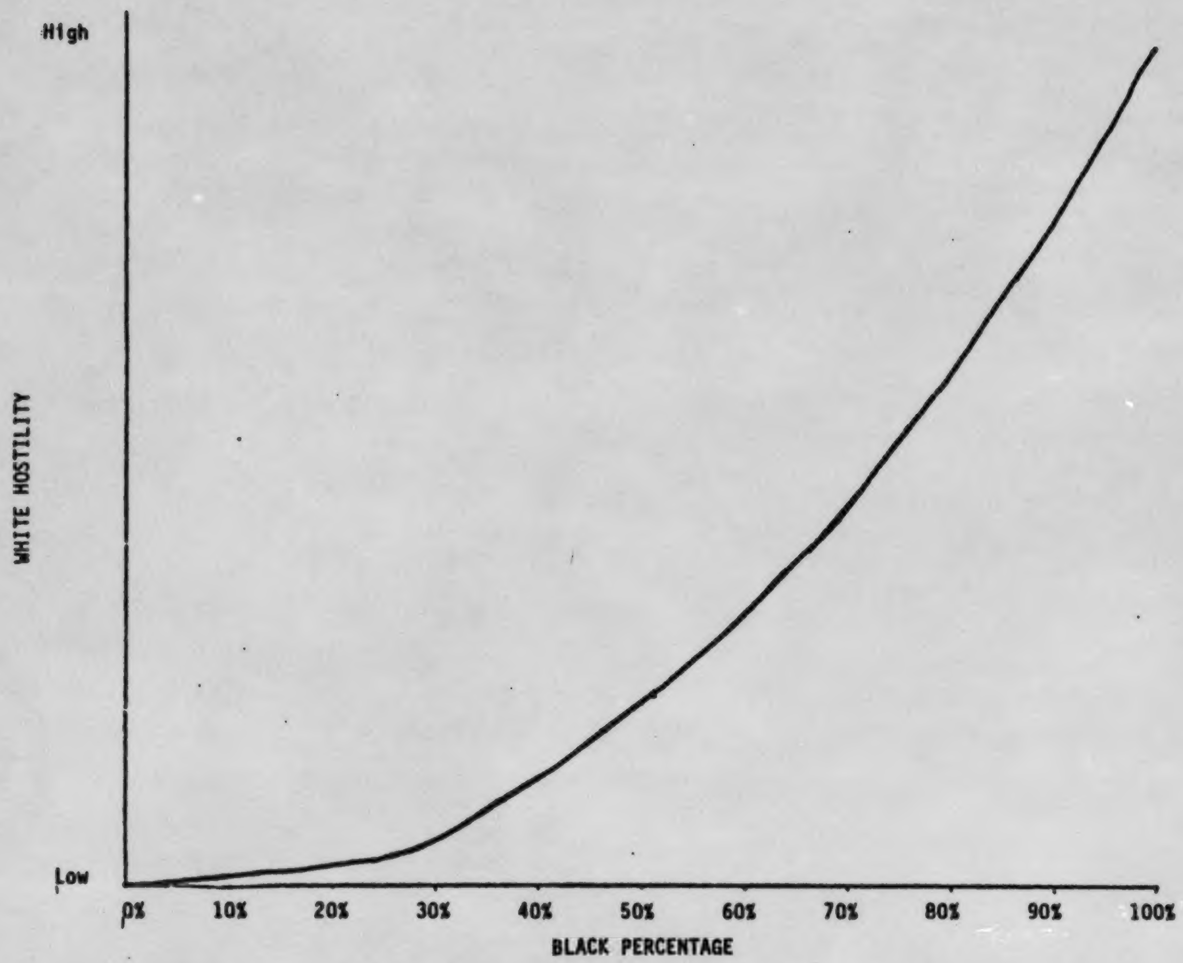

FIGURE 1.1: THE J-CURVE FORM OF NONLINEARITY IN THE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITE HOSTILITY

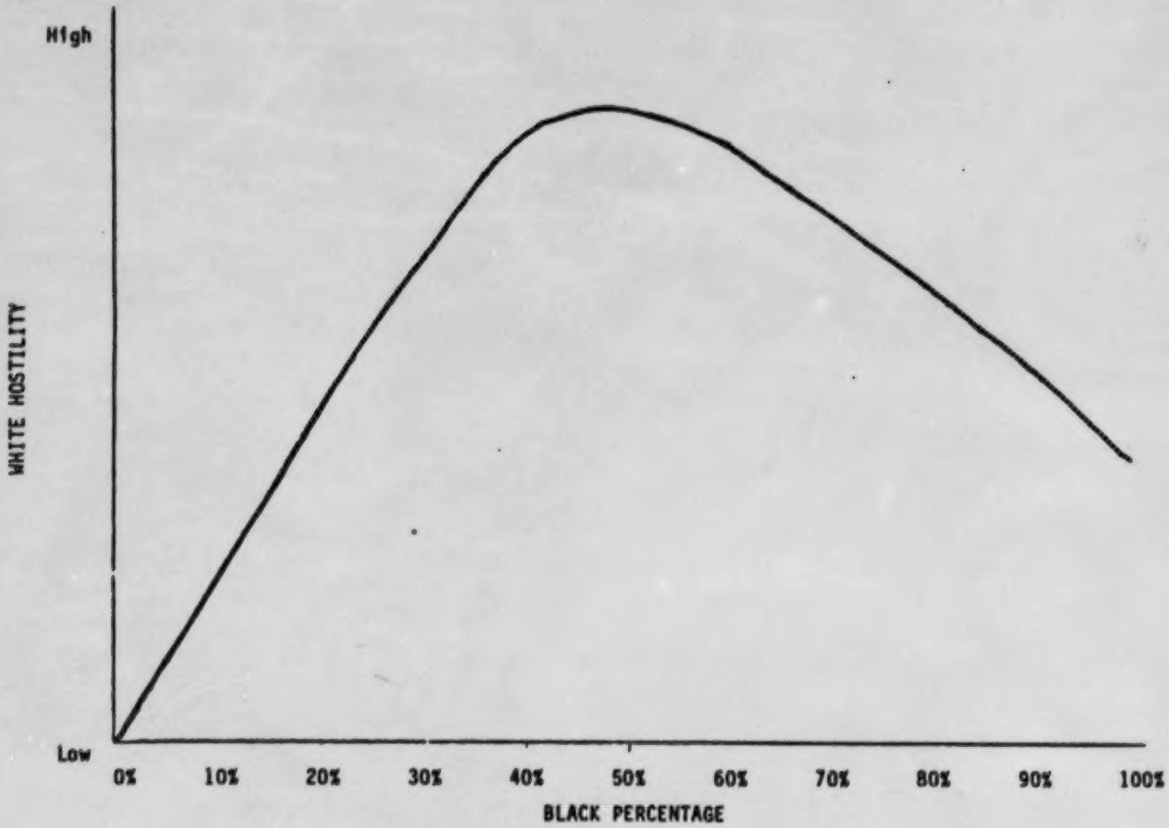

FIGURE 1.2: THE INVERTED-U FORM OF NONLINEARITY IN THE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITE HOSTILITY

FIGURE 1.3

Research Design

STEP 1: CONTEXTUAL ANALYSIS

Contextual Variables (Constructs)	Hostility Measures
School Black Percentage (Control threat posed by Blacks)	Whites' attitudes toward desegregation
School SES (Status threat posed by Blacks)*	Whites' unfriendliness toward Blacks
Region (Strength of traditional racial norms)*	Whites' attitudes toward contact with Blacks
Sub-region of the South (Strength of traditional racial norms)*	Intergroup conflict (Teachers' estimate)
Ruralism (Strength of traditional racial norms)*	
School Size (Likelihood that friendship networks are racially separate)*	

Summary: Controls for contextual variables other than the Black percentage will isolate the unique relationship between the control threat posed by the Black percentage and White students' racial hostility.

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*The discussion of constructs represented by these variables appears in Chapter 3.

FIGURE 1.3
(cont'd)

STEP 2: CONTROL-RELEVANT ANALYSIS

Control-Relevant Variables

- School Black Percentage
- Racial Composition of the School Staff
- Classroom Resegregation
- Black Busing

Hostility Measures

- Whites' attitudes toward desegregation
- Whites' unfriendliness toward Blacks
- Whites' attitudes toward contact with Blacks
- Intergroup conflict (Teachers' estimate)

Summary: The relationship between the Black percentage and White hostility will be examined in schools where White control, as indicated by other control-relevant variables, is strong or weak. The prediction is that the relationship will be stronger in schools where White control is weak.

STEP 3: ANALYSIS OF NONLINEARITY

Summary: Step 3 will determine whether nonlinearity appears in any of the relationships examined in Steps 1 and 2.

CHAPTER 2 THE CONTROL THREAT IN DESEGREGATED SETTINGS

This chapter presents the theoretical background, and part of the empirical background, for this research. First, the chapter describes in more detail the two forms of nonlinearity that have emerged in the relationship between the Black percentage and White hostility (the J-curve form and the inverted-U form) and reviews the explanations that have been offered for both forms. Second, the chapter summarizes Blalock's (1967) discussion of the relationship between the Black percentage and White hostility in Southern politics, with particular attention to the assumptions underlying his expectation that White hostility will accelerate as the Black percentage increases. Third, this chapter considers the applicability of Blalock's work to other indicators of White hostility: White resistance to school desegregation, White flight, and White students' racial hostility in desegregated schools. Finally, the chapter closes with a detailed discussion of the issue of control in desegregated schools and identifies variables other than the Black percentage which also seem relevant to control in desegregated schools.

As noted in Chapter 1, the relationship between the Black percentage and White hostility is said to reflect "laws" of human behavior. The concept of a control threat is the key explanatory concept in these "laws." For example, Key (1949) drew this conclusion from his study of Southern Whites' electoral behavior in the decades following Reconstruction:

> "The hard core of the political South--and the backbone of Southern political unity--is made up of those counties...in which Negroes constitute a substantial portion of the population. In these areas, a real concern of politics, broadly considered, is the maintenance of control by a white majority" (Key, 1949: 5).

Similarly, Wilson (1966) has observed that:

> "the larger the proportion of Negroes in a community, the greater the potential threat they represent to white voters and office holders and thus the greater the efforts made to prevent them from registering and voting" (Wilson, 1966: 437).

Regarding White flight, Millen (1973) has concluded that the rate of White flight is faster from neighborhoods with a higher Black percentage because a higher Black percentage "is likely to be seen as...a... power threat to local whites" (Millen, 1973: 168). And Patchen & Davidson (1973) have argued that, in desegregated schools, "the power of each racial group is likely to increase as its proportion of the total student body increases" (Patchen & Davidson, 1973: 13). In short, scholars have argued that White hostility is higher in settings with a higher Black percentage because the Black percentage represents a threat to White control of the setting. (See also Black & Black, 1973; Hammond, 1977; Holloway, 1969; Rosner, 1954.)

This conceptualization of a control threat is straightforward and quite plausible, but it lacks specificity on at least two crucial questions. First, what explanations can be offered for the fact that the relationship between the Black percentage and White hostility is sometimes nonlinear? And second, what assumptions underlie the conceptualization of the Black percentage as a control threat to Whites?

FORMS OF NONLINEARITY IN THE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITE HOSTILITY

Regarding the first question, some researchers have specified more precisely the nature of the control threat in desegregated settings, to explain two forms of nonlinearity that have emerged in the relationship between the Black percentage and White hostility.[1] One form, which may appear in at least three variants, shows an accelerating increase in White hostility as the Black percentage increases (the J-curve form). In one variant of this form, there is a particular point at which the acceleration becomes apparent, as in Figure 2.1 (at 30% Black). As noted below, this variant has appeared in, for example, Matthews & Prothro (1963), Heard (1952), and Rose (1970). However, in another possible variant of the J-curve form, White hostility could accelerate steadily, without the appearance of any specific "acceleration point," as in Figure 2.2. It seems reasonable to view these two possibilities as variants of the same J-curve form, since the distinction between them may be simply a matter of data quality. That is, if the data are not particularly clear-cut, an observer may be unable to identify a specific Black percentage at which the acceleration begins.

A third variant of the J-curve form occurs when the Black percentage and White hostility are not related until a certain Black percentage is reached, at which point the relationship between those variables becomes positive (as in Figure 2.3, with a "start point" of 40% Black). As noted below, "start points" have appeared in a few previous studies, e.g., Clotfelter (1978) and Giles (1978). This relationship suggests that Whites are not responsive to variation in the Black percentage until that percentage reaches the "start point." However, the relationship also suggests that, once the Black percentage moves past the "start point," White hostility continues to increase; it does not subsequently decline or level off. In short, all three of these possibilities are taken to be variants of the J-curve form, because in each case there is a sustained increase in White hostility (beginning at 0% Black or at some non-zero "start point") as the Black percentage moves toward 100%.

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[1] As noted in Chapter 1, a third form of nonlinearity has also emerged in a few studies (e.g., Black, 1973; Rossell, 1978a)--a form in which White hostility levels off at a certain Black percentage. This form appears to be an artifact of conditions that are peculiar to those studies. Thus, it is not considered here to be a substantively distinct form of nonlinearity. This third form will, however, be discussed in Chapter 3, when the empirical studies in which it has appeared are reviewed.

To explain the J-curve form of nonlinearity, it has been argued that White hostility accelerates when the threat to White control becomes particularly salient to Whites. For example, in a discussion of the control threat in desegregated colleges, Pettigrew (1975) noted that Blacks pose no "political threat" in White-dominated colleges, so Whites sometimes elect token Blacks as presidents of the student council. But when the Black percentage reaches 30% to 40%, the threat to White control becomes quite real, and Whites are no longer disposed to elect Black presidents. Specifically regarding an acceleration in White flight, scholars have argued that White flight increases sharply when Whites begin to fear "being left in the minority" (Fishman, 1961: 46; cf. also Drake & Cayton, 1945; Kerckhoff, 1957; McDermott & Clark, 1955). As noted in Chapter 1, Downs (1970) has argued that White flight accelerates as the Black percentage increases because Whites prefer schools and neighborhoods where their own "milieu and values" dominate. Levine & Havighurst (1967) concurred, observing that middle-class Whites are "seldom willing to send their children to schools in which [Whites] are not clearly the predominant influence" (Levine & Havighurst, 1967: 23). The argument, in short, is that White hostility starts to accelerate as the prospect of being outnumbered becomes salient to Whites and then continues to accelerate as White control diminishes further, i.e., as Blacks become a larger majority in the setting.

In the second form of nonlinearity, a sustained increase in White hostility does not occur. Instead, there is a roughly parabolic relationship in which White hostility increases up to about 50% Black and then decreases (as in Figure 2.4).[2] A variant of this inverted-U form is depicted in Figure 2.5. As with the J-curve variant in Figure 2.2, this variant of the inverted-U form might emerge when the data are so scattered that an observer cannot identify a specific Black percentage at which White hostility peaks.

Bullock (1976) found this inverted-U form of nonlinearity in the relationship between the Black percentage and White students' hostility toward Blacks in Georgia high schools. White hostility was clearly highest in schools that were racially balanced. To explain this finding, Bullock[3] noted that in schools where either race predominates, the matter of control is likely to be a foregone conclusion. The outcomes of elections, the primacy of the dominant group's cultural values, and other control-relevant issues are never seriously in doubt. However, in racially balanced schools, such issues are perpetually in doubt. Consequently, control becomes a particularly salient and divisive matter for students in these schools. This fact, Bullock claimed, generates and maintains a high level of White hostility toward Blacks in racially balanced schools.[4]

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[2] If the rate of decrease past 50% is less then the rate of increase under 50% Black, then the linear relationship between the Black percentage and White hostility would still be positive.

In summary, explanations for these two forms of nonlinearity both center on the concept of the control threat in desegregated settings.[5] However, they differ on the precise nature of that threat. With the J-curve form of nonlinearity, the salience of the control threat is said to accelerate as the Black percentage increases. With the inverted-U form, the control threat is said to be most salient when neither group controls the setting.

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[3] The remainder of this paragraph is an elaboration of Bullock's brief argument (Bullock, 1976: 301).

[4] Bullock found a non-significant negative relationship between the Black percentage and Black students' hostility toward Whites. That is, Blacks were slightly more hostile toward Whites in schools with a lower Black percentage. Black hostility was not highest, however, in schools that were racially balanced. Chapter 5 includes a brief discussion of the relationship between the Black percentage and Black students' hostility which emerged in the present data.

[5] Schelling (1972) has proposed an explanation for acceleration in White flight that does not rest on the concept of a control threat. Instead, he argued that the distribution of "flight thresholds" at which Whites abandon a setting may, as the explanation for the J-curve suggests, cluster around 20% to 40% Black. But the distribution may also take any other shape. White flight could therefore accelerate or decelerate at any Black percentage, depending on the shape which the distribution takes. Since Schelling's explanation applies specifically to White flight, this research has no direct relevance for his explanation, except insofar as the distribution of White students' hostility along the range of the Black percentage suggests what the distribution of flight thresholds might look like among Whites in desegregated schools.

ASSUMPTIONS UNDERLYING THE CONTROL-THREAT CONCEPT

Some additional work by Blalock (1967) bears on the second question, viz., what are the assumptions under which the Black percentage represents a control threat to Whites? Blalock identified certain assumptions underlying the expectation of a J-curve relationship between the Black percentage and White hostility. But a large part of his work seems applicable to any form of the relationship between these two variables. That is, most of the assumptions underlying the J-curve form also seem relevant to the inverted-U form or the positive linear form--indeed, to any explanation which posits the Black percentage as a control threat to Whites.

This section begins with Blalock's discussion of cases in which the Black percentage[6] most clearly represents a control threat[7] to Whites. Then this section turns to Blalock's explanation for the J-curve form of nonlinearity in the relationship between the Black percentage and White hostility and his discussion of assumptions underlying that explanation. Finally, this section reviews the relevance of those assumptions for other versions of the control-threat concept.

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[6] More precisely, Blalock discussed the minority percentage, not the Black percentage. The substitution of "Black" for "minority" does not alter the substance of his argument.

[7] Blalock used the term "power threat" rather than "control threat." The latter term is used here, both to avoid the political connotations of "White power" and "Black power" and to emphasize the premise that the essential issue for Whites is control of the setting.

Blalock supposed that Black percentage could represent both a threat to White control and a threat to White economic prosperity. The economic threat, he wrote, is most salient in the competition between Whites and Blacks for jobs, especially higher-status jobs. Competition is more fierce in communities where the percentage of Blacks is higher, so Whites are more hostile toward Blacks in such communities. Blalock theorized that the positive relationship between the economic threat posed by Blacks and White hostility gradually decelerates, i.e., that economic competition from Blacks induces smaller increments in White hostility as the level of competition increases.[8]

Blalock also argued that the control threat posed by the Black percentage is most salient when Blacks are numerous enough to threaten Whites' social and political dominance of a setting. In an extended discussion, Blalock cited three indicators of Whites' response to the control threat; the maintenance of symbolic segregation, adherence to threat-oriented beliefs, and White behavior in electoral politics. First, Whites in the South have tried to maintain control over desegregated communities partly through symbolic forms of segregation (the so-called "Jim Crow" laws and customs), such as separate drinking fountains, restrooms, and restaurants.

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[8] In a sense, the threat to White economic properity is a threat to Whites' control of their economic prosperity. That is, the economic threat posed by Blacks can be seen as a type of control threat.

Since this research focuses on the control threat posed by Blacks, the relationship between the economic threat and White hostility will not be discussed further here. See Blalock (1967: 147-150) for a more detailed discussion of the economic threat.

> "The use of separate drinking fountains, for example, indicates in effect that whatever social distinctions may exist between the wealthy and the poor white, these are insignificant as compared with the rigid line between white and Negro" (Blalock, 1967: 164).

Although rigid, legislated segregation no longer prevails in the South, some current practices (both in the South and elsewhere) still function as symbols of racial distinctions. For example, many Whites continue to resist residential desegregation even when prospective Black neighbors are equal to them in social class. Their unwillingness to live near any Black neighbors is a clear sign that rigid racial distinctions are still operative. Also, when school districts implement desegregation plans, the burden is often heavier for Blacks (e.g., in school closings and number of children bused). As St. John (1975) has noted, racial disparities in the burden of desegregation are a clear "symbol of powerlessness" for Blacks (St. John, 1975: 91). In any case, Blalock's essential point is that the motivation for symbolic segregation has, in large part, been the maintenance of White control, His examples of symbolic segregation are dated, but more current examples can easily be identified.[9]

A second indicator of White hostility to the control threat posed by Blacks is the maintenance of threat-oriented beliefs. In the South and elsewhere, rigid stereotypes of Blacks have served in part to mobilize White discrimination by "drawing a hard-and-fast line" between Whites and Blacks (Blalock, 1967: 166). For example, Blalock wrote that the fear of rape

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[9] It could be argued that symbolic segregation is not primarily a response to the control threat posed by Blacks. Symbolic segregation may serve in part to maintain White control, but symbolic segregation has been strongly defended even where the Black percentage is very low. Accordingly, this indicator of White hostility might be more properly viewed as a response to the status threat posed by Blacks, regardless of their relative numbers.

> "functions to rally white sentiment and to justify violent or extreme forms of social control over potential deviants.....In short, it makes white mobilization more effective and immediate" (Blalock, 1967: 167).

The examples which Blalock cited, such as the fear of rape, may be dated now. But recent research suggests that other threat-oriented beliefs are very much alive, e.g., the fear of violent crime by Blacks (Hesselbart & Schuman, 1976) and beliefs that Blacks are pushing too far for civil rights and getting undue special treatment from the government (Sears, et al., 1979; McConahay & Hough, 1973).

Finally, Blalock argued that White hostility toward the control threat posed by Blacks is reflected in Whites' efforts to maintain control over electoral politics. White hostility on this front is, Blalock noted, apparent in attempts to minimize Black voter registration, in attempts to minimize Black voting, and in the degree of White support for segregationist political candidates. One could add two other examples. First, Whites have gerrymandered electoral districts and instituted at-large elections to minimize the likelihood that Black representatives will win office. Second, Whites have promoted large-scale annexation of White suburban areas and the creation of governmental units encompassing several formerly autonomous cities and towns (e.g., "metro" or "uni" governments), to swamp Black votes in the central city. (Cf., for example, Sloan & French, 1971.)

Evidence on the empirical relationship between the Black percentage and various indicators of White hostility is covered in Chapter 3. This discussion now turns to Blalock's theoretical account of the relationship between those two variables. The discussion, both here and in Blalock, centers on one particular indicator of White hostility: the maintenance of control in Southern electoral politics. Blalock argued that if White control is to remain constant as the Black percentage increases, Whites must mobilize their resources for control, relative to Blacks' mobilization of Black resources, at an ever-increasing rate.[10] If X is the proportion of Blacks in a setting (e.g., a school, county, or state), then 1-X is the proportion of Whites in the setting. White control can be expressed as follows:

$$C_w = \{(1-X)NR_w\}M_w$$

where R_w and M_w represent Whites' resources and the mobilization of those resources, respectively, and N represents the total population in the setting. Black control can be expressed similarly:

$$C_b = XNR_bM_b \ .$$

The ratio of White control to Black control, i.e., the relative advantage of Whites over Blacks, is:

$$\frac{C_w}{C_b} = \frac{1-X}{X} \cdot \frac{R_wM_w}{R_bM_b} \ .$$

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[10] As an example, Blalock treated the "right to vote" as a resource and treated the exercise of that right as a mobilization of that resource. In addition, the illegal or quasi-legal suppression of voter registration and of actual voting can be seen as an attempt by one group to augment its control by reducing the resources and mobilization, respectively, of the other group.

As X (the Black percentage) increases, if $\frac{C_w}{C_b}$ is to be maintained. then:

$$\frac{R_w M_w}{R_b M_b} = \frac{X}{1-X},$$

which represents a positive, nonlinear relationship with an increasing slope.[11] (Cf. Figure 2.6.) In other words,

> "if whites are to maintain a constant...advantage over Negroes, then the degree of their mobilization relative to that of Negroes must not only increase with percent Negro, but it must also rise at an ever-increasing rate" (Blalock, 1967: 153; emphasis his).

Here, then, is an explanation for acceleration in White hostility that offers some specificity to the assertions of other researchers. Blalock identified cases in which the Black percentage operates essentially as a control threat to Whites and then argued that, in those cases, the relationship between the Black percentage and Whites' mobilization of resources will be positive and nonlinear. There is no single point of acceleration in the relationship, as indicated in Figure 2.6. But the relationship is, in any event, nonlinear with a steadily increasing slope.[12]

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[11] Blalock noted that relative control can be taken as a ratio of Black to White control or as a difference between Black and White control. For example, Whites may possess "60 units of power as compared with 10 units" for Blacks. The units for each group could change, e.g., to 100 and 30, respectively. Have Whites gained or lost power? With the ratio measure, Whites have lost ground because 100/30 is less than 60/10. With the difference measure, Whites have gained ground because 100-30 is treater than 60-10. But, as Blalock reported, using the difference measure instead of the ratio measure only alters the rate at which White mobilization must increase. It does not alter the basic shape of the curve (Blalock, 1967: 151, 153).

[12] Blalock clearly did not mean to deny the possibility that "acceleration points" could emerge in this relationship. In fact, he cited as supporting evidence the study by Matthews & Prothro (1963), in which Black voter registration plummeted at 30% Black in Southern counties. The research by Matthews & Prothro is reviewed in Chapter 3.

There are a number of assumptions underlying this conceptualization of the control threat. Blalock identified four assumptions, and one additional assumption seems implicit in his discussion. First, Blalock has argued that Whites are strongly motivated to maintain control of desegregated settings as the Black percentage increases. Thus, strictly speaking, the relationship which Blalock has described is a relationship between the Black percentage and Whites' motivation to mobilize resources (Blalock, 1967: 160). Blalock has taken actual mobilization (e.g., the rate of White support for a segregationist political candidate) as an empirical indicator of this underlying motivation. Yet Whites may not be able to mobilize their resources as effectively as they would like. Mobilization requires the use of "organizational and ideological techniques" which Whites may or may not have at their disposal (Blalock, 1967: 160). Accordingly, if the relationship between the Black percentage and empirical indicators of White motivation is to emerge in the expected J-curve form, then those indicators must accurately reflect the underlying level of Whites' motivation to maintain control. In short, Whites must be able to act in accord with their motivations.[13]

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[13] Alternatively, one could assume that the constraints on White mobilization are fairly constant across settings, i.e., that the relationship between motivation and mobilization is fairly constant. Under this assumption, a measure of mobilization could be used to rank settings by the degree to which Whites in each setting are motivated to maintain control.

This assumption seems required for empirical confirmations of other versions of the control-threat concept as well. That is, other explanations which posit White hostility as a response to the control threat must also assume that empirical evidence of the effort to maintain control is an accurate reflection of the underlying motivation to maintain control. Thus, although Blalock's discussion centered on the J-curve form of nonlinearity, the position taken here is that this first assumption applies to any explanation for White hostility that invokes a motivation among Whites to maintain control in desegregated settings.

A second assumption in Blalock's account is that Whites are in fact motivated to maintain an advantage over Blacks that remains constant as the Black percentage varies. For example, suppose that in one county 60% of the Whites and 40% of the Blacks usually vote. In this county, Whites have a 3/2 advantage. Examining the election returns from this county, one would expect that if Black voting increases by ten percentage points (to 50%), White voting would increase by fifteen percentage points (to 75%), as Whites try to maintain their 3/2 advantage over Blacks.[14] Similarly, if one compared election returns across several counties, one would expect to find voter turnout ratios similar to 60/40 in each county--75/50, 50/35, 40/25, etc. With these expectations clearly spelled out, the assumption that Whites seek to maintain a constant advantage over Blacks may seem less credible. After all, to maintain their advantage, Whites must be able to assess White and Black resources with considerable accuracy and must respond quickly when Black mobilization increases or decreases. Perhaps the assumption remains credible enough if it is revised as follows: Whites will seek to maintain roughly the same advantage over Blacks across settings with different percentages of Blacks or as the Black percentage changes over time. The revision would allow for some error in Whites' assessment of the previous or anticipated Black turn-out and allow for the effects of extraneous factors on Whites' turn-out.[15] This revision may seem obvious and unnecessary.

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[14] These increases could show up in the same election, if Whites accurately anticipated the increase in Black voting and mobilized to offset it. Their anticipation could be based on the perception of increases in Blacks' voter registration prior to the election or on the knowledge that Black leaders were encouraging a large turn-out for the election. These increases could also be staggered. For example, 40% of the Blacks and 60% of the Whites might vote in one general election. Then, in the next primary election, the Black turn-out could jump to 50%, while the White turn-out holds at 60%. As a reaction to the Black increases, the White turn-out in the next general election (a few months later) could jump to 75%, while the Black turn-out holds at 50%. A comparison of turn-out rates in the two general elections would reveal the maintenance of a constant 3/2 advantage.

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[15] One could relax this assumption a bit more by stipulating that Whites' assessment of White and Black resources need be correct only in the aggregate. That is, each individual White need not independently and accurately appraise each group's resources. If White candidates or political leaders have assessed each group's resources, they may be able to mobilize White voters in sufficient strength to maintain Whites' advantage over Blacks. Thus, Whites could respond to the control threat as Blalock predicted, even if individual Whites are not aware of the precise degree of that threat themselves.

But, given the expectations which derive from this assumption, it seems helpful to add the word "roughly" here, if only to emphasize the point.[16]

Notably, this second assumption is represented in Blalock's equations by the term $\frac{C_w}{C_b}$. If $\frac{C_w}{C_b}$ remains constant, Blalock argued, the relationship between the Black percentage and White hostility will take the J-curve form. This assumption need not be adopted in other versions of the control-threat concept, since a positive linear relationship or an inverted-U relationship could emerge whether $\frac{C_w}{C_b}$ remains constant or not. This assumption also seems irrelevant to the J-curve form in White flight, since Whites who move away from a desegregated setting are obviously not part of the effort to maintain control of the setting. Thus, the assumption that Whites seek to maintain a constant advantage over Blacks seems pertinent only to Blalock's version of the control-threat concept.

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[16] Of course, as this qualification looms larger (e.g., as the error in Whites' assessment of the Black turn-out increases), a significant linear relationship between the Black percentage and White hostility becomes less likely. This same expectation applies *a fortiori* to the likelihood of noticeable nonlinearity in this relationship.

Third, Blalock specified that he was assuming the presence of only two groups in the setting. In other words, his version of the control-threat concept seems to require that only Whites and Blacks be present in the setting. It could be argued further that when the control threat emerges in electoral politics, the two-group limit applies not just to racial groups but also to any functioning political groups (e.g., political parties, unions). If, for example, Whites do not vote as a bloc but instead split their votes between two candidates, their advantage over Blacks will be harder to assess and to maintain. If Blacks also split their votes, the matter becomes even more confused. On the other hand, one could simply argue that the issue of split vs. bloc voting is itself a problem in mobilizing resources. That is, for both Whites and Blacks the struggle for control depends in part on how tightly each group manages to close ranks at election time. Similarly, one could argue that the presence of a non-Black minority in the setting poses another problem in resource mobilization, viz., can Whites or Blacks induce the non-Black minority to pool its resources with theirs? Under this view of the matter, this third assumption does not require the presence of just Whites and Blacks in the setting. It simply requires that there be just two sides to an issue (e.g., two viable candidates, a yes/no referendum). When that issue cuts along racial lines (as it often does), candidates or leaders of either race may (as they often do) try to maximize their resources by generating bloc voting on their side of the issue. In short, the existence of a non-Black minority or of recalcitrant members in a group does not necessarily undercut

Blalock's conceptualization. Instead, given a binary issue, their presence simply poses a resource mobilization problem for leaders on each side of the issue.

Regarding the relevance of this assumption for other versions of the control-threat concept, it would seem that the assessment and use of available resources will be relevant whenever control is a salient issue for Whites. This is presumably the case regardless of whether the issue of control becomes (linearly or nonlinearly) more salient as the Black percentage approaches 100% or is most salient near 50% Black. Accordingly, the assumption of only two functioning groups in the setting seems applicable to any account of the relationship between the Black percentage and White hostility that invokes a control-threat concept.

A fourth assumption cited by Blalock is that resources are additive. When the struggle for control is focused on elections, resources (i.e., votes) are of course additive. Each group's resources are simply the sum of its eligible or registered voters. But when the struggle for control is not focused on elections, each group's resources may not be simply a function of its numbers. For example, White students in a desegregated school may have proportionately more resources than Black students have, because Whites have more influence with teachers or because they "know the ropes" of the school better. If so, then the resources available to Blacks and Whites for controlling the school are not just a function of their numbers. This prospect weakens the explanatory power of Blalock's control-threat concept because it means that the "X" and "1-X" in his equations are not necessarily accurate indicators of each group's resources.

One way to handle this problem is simply to define each group's resources as the total number of each group in the setting. Thus, resources are by definition additive. Variables that produce non-additivity (e.g., influence with teachers, special familiarity with the setting) would then be treated not as additional resources but as variables that confound the relationship between resources (i.e., racial proportions) and White hostility. This is precisely the approach taken in this research on the control threat in desegregated schools. The Black percentage is treated as a measure of Black students' resources (and, implicitly, the White percentage is treated as a measure of White students' resources). Variables that might upset the correspondence between resources and numbers are brought into play as variables that may affect the relationship between the Black percentage and White hostility. Since it is hypothesized that these variables, like the Black percentage, are relevant to White control in schools, the effect of each variable on this relationship can be predicted on the basis of its effect on White control. The concluding section of Chapter 2 discusses these variables in detail.

The assumption that resources are additive is also applicable to other conceptualizations of the control threat to Whites. That is, in any attempt to quantify the control threat, it seems reasonable to stipulate that Whites are at a slight disadvantage in a 60% Black school, Blacks are at a greater disadvantage in a 30% Black school, both groups have equal power in a 50% Black school, etc. Variables that might upset the correspondence between numbers and resources can then be treated as confounding factors in the relationship between resources and racial hostility.

One additional assumption was not raised by Blalock, though it seems implied in his conceptualization of the control threat and applicable to other conceptualizations as well. This assumption is that the mobilization of resources is in fact an indicator of White hostility toward Blacks. Even if empirical evidence of White mobilization (e.g., White support for a segregationist candidate) does accurately reflect the underlying motivation to maintain White control (the first assumption cited above), this motivation is probably also grounded in non-racial concerns (e.g., approval of the economic policies favored by the candidate). Moreover, those concerns that are specifically racial may be grounded partly in fear as well as hostility toward Blacks (e.g., the fear that a more liberal candidate would favor special treatment for Blacks). In short, Whites' effort to maintain political control is surely not a pure indicator of White hostility toward Blacks. The assumption here is that the effort to maintain control is, in any case, a fairly reliable indicator of White hostility. That is, variation in the effort to maintain control presumably captures at least a good part of the variation in the underlying construct, White hostility.[17]

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[17] The same reasoning applies to the other indicators of White hostility, viz., White resistance to school desegregation, White flight, and White students' hostility in desegregated schools.

In summary, Blalock has offered a precise conceptualization of the control threat that accounts for an acceleration in White hostility. This conceptualization rests on several assumptions, viz., Whites are able to mobilize resources as effectively as they wish; Whites are motivated to maintain roughly the same advantage over Blacks as the Black percentage varies; the issue on which a control threat is perceived is a binary issue (possibly cutting along racial lines); resources (the number of each group in the setting) are additive; and Whites' motivation to maintain control of a setting is, in fact, a sign of White hostility toward Blacks. All except the second assumption (regarding a constant White advantage over Blacks) seem applicable to other conceptualizations of the control threat and are, accordingly, adopted in this research.

APPLICABILITY OF BLALOCK'S WORK TO OTHER CASES OF CONTROL THREAT

Blalock's conceptualization of the control threat is based on Whites' behavior in electoral politics--a setting in which the concepts of resources, mobilization, and control have straightforward operational analogs. Specifically, resources are eligible or registered voters. Mobilization is the actual turn-out. And control is the outcome of an election or referendum. This section discusses the applicability of Blalock's account to the other three major indicators of Whites' response to the control threat that have emerged in previous empirical research: White resistance to school desegregation, White flight, and White students' hostility (racial attitudes and sociometric choices) in desegregated schools.

White resistance to school desegregation (e.g., efforts to minimize the extent of desegregation or to delay the implementation of desegregation plans) seems rougly analogous to White behavior in electoral politics. The extent and timing of desegregation are not usually subject to plebiscite, but they are clearly subject to political considerations of a broader sort. Competing interest groups have, in many communities, mobilized a variety of resources (e.g., informal political influence, campaign contributions for school board candidates, public demonstrations) in an attempt to control the extent and timing of desegregation (e.g., Crain, 1968; United States Commission on Civil Rights, 1975, 1976). Resources and mobilization are less easily defined here, and control is less easily assessed. But the application of Blalock's conceptualization to this indicator of White hostility seems, at least in principle, to be fairly straightforward.

Applying Blalock to White flight from desegregated schools and neighborhoods seems more problematic, because his account refers specifically to Whites who are trying to maintain control of desegregated settings, not to Whites who have given up the struggle for control and moved away. The problem is not with the concepts which Blalock used to analyze White hostility in electoral politics; resources, mobilization, and control do seem to have reasonable analogs in White flight. For example, the number of White residents or parents in the setting is one aspect of White resources.[18] Other resources available to Whites in desegregated neighborhoods might include residents' associations and knowledge of how lending agencies and realtors operate. Other resources available to Whites with children in desegregated schools might, similarly, include parents' organizations and personal contacts with school and district administrators. Efforts to mobilize these resources might include, in either setting, publicity campaigns, the creation of informal communication networks, and the filing of legal briefs. Finally, the assessment of control in these settings is probably rather impressionistic. But Whites do apparently formulate some sense of their control, through indicators such as those cited in Chapter 1 (e.g., access to facilities and activities in the setting). Thus, a combination of ethnographic and survey research might well produce accurate operational measures of resources, mobilization, and control. But the essential problem would remain: Blalock's conceptualization of the control threat concerns the relationship between the Black percentage and hostility among those Whites who are struggling to maintain control of a setting. It is not clear how his conceptualization applies to behavior that is not an effort to maintain control but is instead a withdrawal from the stuggle.[19]

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[18] The correspondence between numbers and resources is probably not one-to-one, though, since it is unlikely that all Whites in a setting are "fighters." Some may already have decided to leave, and others may remain undecided on either course of action. The latter two sets of Whites (i.e., the "non-fighters") may offer some resources in the struggle as long as they are still in the setting. But, compared to "fighters," they probably offer less valuable resources.

On the other hand, Blalock's account does seem applicable to the relationship between the Black percentage and White students' racial hostility when White students are struggling for control of desegregated schools. Once again, the concepts that are central in Blalock's account of the control threat seem to have reasonable operational analogs for students in desegregated schools. The number of Whites in the school is one aspect of White resources. (Other resources, e.g., influence with teachers, are discussed below.) Efforts to mobilize these resources may include the creation of informal student communication networks, student election campaigns, and the formation of gangs to enforce racial norms. Finally, although the assessment of control may be partly impressionistic in desegregated schools,[20] Whites apparently do formulate some sense of their control in schools, again through indicators such as those cited in Chapter 1 (e.g., students' access to extra-curricular activities at the school). Thus, the struggle for control in desegregated schools is probably not unlike the struggle for control in electoral politics. Applying Blalock's conceptualization of the control threat to White students' hostility in desegregated schools therefore seems defensible and fairly straightforward.

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[19] This is not a problem for simpler versions of the control-threat concept, since those versions do not specifically concern the motivation to maintain control of desegregated settings. The motivation to flee desegregated settings may still be based on a preference for control of desegregated settings, i.e., a preference for majority-White settings.

The remainder of this chapter describes the control threat in desegregated schools in more detail and identifies certain variables that represent resources for control other than each group's numbers.

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[20] In many schools, student elections (for cheerleader positions, student government, or honors) provide a clear-cut basis for assessing control. Special classes, awards, or clubs (e.g., chorus, band, safety patrol) for which students are selected by staff provide another basis for assessing control. Thus, White students' assessment of their control in desegregated schools is, at least in some respects, probably quite similar to White adults' assessment of their control in electoral politics.

These variables are the control-relevant variables mentioned earlier in this chapter.

THE CONTROL THREAT IN DESEGREGATED SCHOOLS

Many observers have noted that control or "turf" is a salient concern for students in desegregated schools. Collins has put the matter succintly:

> "When different ethnic groups attend the same school, they must contend with the established right of usage assigned to the dominant...group. Each school 'belongs' to a particular group" (Collins, 1979: 99).

Several other observers have adopted a similar perspective on desegregated schools (e.g., Bullock, 1976; Cohen, 1980; Iadicola & Moore, 1979; Mercer et al., 1980; National Institute of Education, 1978; Noblit, 1979; Pettigrew, 1975; Rosner, 1954; Suttles, 1968). For example, in his ethnographic study of a desegregated high school, Noblit (1979) observed that the higher-status White students had more power or "negotiability" in the classroom; consequently, they could "use, or 'hustle,' the teachers' discretionary interpretations of their behavior," to circumvent the rules of discipline (Noblit, 1979: 81). Cohen (1980) has argued that if minority representation among students and staff at a desegregated school is low, minority students

> "may feel powerless in respect to majority...group classmates. Likewise, the majority student...may conclude [that] it is only right and proper for Whites to tell Blacks and Browns what to do" (Cohen, 1980: 260).

Cohen's concern with minority representation in desegregated schools reflects a position taken by many other observers, viz., that control is largely a function of the proportion of each racial group in the enrollment. Sheehan (1980), citing Blalock (1967), has suggested that as the relative size of a group increases, the power of the group also increases. Thus, a higher percentage of a particular racial group "could lead to feelings of threat...and to an increase in prejudice" (Sheehan, 1980: 53). In Willie's (1976) discussion of racial proportions in schools, he argued that 20% should be the minimal enrollment percentage for either Whites or Blacks, if they are to have any "effect upon institutional decision-making" (Willie, 1976: 319).[21] Also, Patchen & Davidson (1973) have noted that "the power of each racial group is likely to increase as its proportion of the total student body increases" (Patchen & Davidson, 1973: 13).

There is, moreover, solid empirical evidence for this connection between racial proportions and control. In Iadicola & Moore's (1979) study of cross-race interactions among elementary-school students, they found that Whites were more dominant (e.g., talked more, influenced group decisions more) in schools where the minority percentage was lower. They described the minority percentage as a "structural... determinant of status and power" (Iadicola & Moore, 1979: 5).

Additional evidence on this point concerns the participation of Blacks in extra-curricular activities. Access to such activities has been an important issue in desegregated schools. Apparently, White students and staff often accept the presence of Blacks in a school but try to maintain "symbolic segregation" in the school's extra-curricular activities, e.g., student government, sports and recreation teams, cheerleader squads, the safety patrol, and hobby clubs (Alabama Council, 1972; U.S. Commission on Civil Rights, 1976).[22] The message which is conveyed through segregating these activities--that Whites intend to maintain their control of the school--is by no means lost on Blacks (Pettigrew, 1975; Mercer et al., 1980). For example, in a study of three desegregated high schools in a Midwestern city, Gottleib & TenHouten (1965) found that Black students in the predominantly White school were underrepresented in the most prestigious extra-curricular activities.[23] The same was true for Whites in the predominantly Black school. The authors concluded that the outnumbered students at each school had "conceded" the school to the other group.

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[21] Willie recommended no maximum percentage for either group, but his argument obviously suggests a maximum of 80%.

Two other studies have tied racial proportions to students' sense of control in desegregated schools. Coleman et al. (1966) found that, among Whites at all grade levels, the school Black percentage was negatively related to their sense of control over their environment. St. John (1971a) found that the classroom Black percentage was negatively related to Whites' sense of control, after the effects of other variables (sex, IQ, grade point average, and socio-economic status) were controlled. It should be emphasized that the measures of control used by Coleman et al. and St. John did not refer specifically to control at school or to Black vs. White control. But their research does suggest that the Black percentage has some relevance for students' sense of control over the environment, broadly considered. In the context of the other research cited here, these results lend further empirical support to the position that control is in fact a matter of concern for students in desegregated schools.

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[22] The maintenance of segregation may entail keeping Blacks out of these activities altogether or unofficially designating some activities (e.g., boys' basketball) as Black-only and other activities (e.g., safety patrol) as White-only.

[23] Gottleib and TenHouten determined the prestige of activities through students' reports.

There is, in addition, some evidence on one final question; namely, does students' sense of control at the school affect their racial attitudes or interracial behavior? In Patchen & Davidson's (1973) study of race relations in desegregated high schools, they devised two measures of White students' "power": perceived power (an index of students' perceptions of their influence at the school) and actual power (the proportion of student officers who were White). They found that in schools where Whites had more perceived power and actual power, Whites "behaved more positively" (more friendly contact, less avoidance) toward Blacks, while Blacks "behaved more negatively" toward Whites. In summary, evidence suggests that the issue of control is a salient concern for students in desegregated schools and that the Black percentage represents at least partly a control threat to Whites. There is also some indication that White hostility toward Blacks is lower in schools where White control (as perceived by Whites) is stronger.

While the Black percentage appears to be the single most important indicator of control in desegregated schools, there are other variables that also seem relevant to control. More specifically, there are other variables that seem to affect students' control over such matters as the outcome of student elections, students' access to extra-curricular activities, and the equitability of student discipline. The research on control in desegregated schools suggests at least four such variables: the racial composition of the school staff, the degree of resegregation at the classroom level, the racial proportions among students who are bused to the school, and the pre-desegregation racial status of the school (an all-White or all-Black enrollment).

First, a number of researchers have connected staff racial composition to control in desegregated schools (e.g., Cohen, 1980; Mercer et al., 1980; U.S. Commission on Civil Rights, 1976). The connection has been particularly obvious when school desegregation brings on the demotion or dismissal of Black staff members (Munford, 1973; Smith et al., 1973). But, more generally, the presence of a substantial number of Blacks on the school staff suggests to White and Black students that Black students will be treated more fairly. For example, students expect that discipline policies and solutions to student disputes are less likely to favor Whites (Alabama Council, 1972; U.S. Commission on Civil Rights, 1976) and that interactions between teachers and students are less likely to favor Whites (Henderson & Von Euler, 1979; U.S. Commission on Civil Rights, 1976).

There is, in fact, some indication that these expectations are correct. Some research suggests that White teachers do interact more often with White students than with Black students and that White teachers favor White students in handling discipline problems (Fancher, 1970; Gay, 1975; Jackson & Cosca, 1974; Mandel & Longshore, 1980). But the essential point is that students may expect to be treated more favorably by same-race teachers. Consequently, the racial composition of the staff may affect the perceived likelihood of favoritism in discipline and classroom interaction. When teachers regulate access to extra-curricular activities, honors, and other school privileges, students would probably make the same connection between staff racial composition and the likelihood of favoritism in these aspects of school life. Thus, the racial composition of the school staff can be posited as a variable which affects White control of desegregated schools. In a school with a predominantly White staff, White students probably believe that their control is stronger.

Research by St. John (1971b) offers a bit of direct evidence on this point. She found that when teachers are rated as more fair (by adult observers), White students' sense of control over their environment is lower. She did not report this relationship by race of teacher, but her research does suggest that teacher fairness affects White students' sense of control, broadly considered.

A second control-relevant variable in desegregated schools is the degree of resegregation at the classroom level. Mercer et al. (1980) and Munford (1973) have noted the relevance of classroom resegregation to control in desegregated schools, and empirical research by Moore & Iadicola (1980) supports the point. Their research on student behavior in interracial (White/Hispanic) groups found that in schools where there was a higher level of classroom resegregation, White students more often spoke and more often tried to influence the decisions of other students in these groups. The authors interpreted this finding much as Blalock interpreted the maintenance of symbolic segregation in the South. That is, they concluded that classroom resegregation underscored the status distinction between Whites and Hispanics.

A third control-relevant variable is the racial proportions among students who are bused to the school. Deslonde (1978) and Mercer et al. (1980) have noted the relevance of busing to White control. When the Blacks who attend a desegregated school do not live nearby but are instead bused to the school from other neighborhoods, a higher Black percentage is not so threatening to White control. Both White and Black students will tend to see the school as White turf. If, in addition, busing schedules preclude Blacks' participation in extracurricular activities, it will of course be much easier for Whites to maintain segregation in those activities.

Some empirical evidence exists for the relationship between busing and control. When Iadicola & Moore (1980) examined classroom resegregation, they also examined the relationship between busing and Whites' dominance in interracial work groups. When the absolute number of Hispanics bused to the school was higher, and when more Hispanics than Whites were bused to the school, White dominance was stronger. Also, St. John (1971a) found that when the Blacks who attend a school were traveling from another district, Whites' sense of environmental control was higher. Again, this measure of control is not specific to the school or to racial control. But it is apparent that busing has some relevance to White control in schools. Where Black busing is higher (either the absolute number or the Black/White difference), White control is probably higher, because the school is still the home turf of Whites.

Finally, the pre-desegregation racial status of a school may affect White control after desegregation has occurred. Formerly Black schools may still be seen as Black turf; formerly White schools, as White turf. This is especially likely if the school did not change its name, mascot, or colors when desegregation occurred (Smith et al., 1973; Henderson & Von Euler, 1979). Thus, when the school was formerly a White school, and especially when the school symbols have not been changed, Whites' sense of control may be stronger.

In summary, each of these four control-relevant variables is essentially an indicator of resources by which control is established in desegregated schools. Three of the variables--classroom resegregation, Black busing, and the school's pre-desegregation racial status--serve to reinfoce status distinctions between Blacks and Whites. These distinctions, in turn, reinforce the maintenance of White control in the school. Functionally, then, these variables are like the Jim Crow laws of the old South, which Blalock cited as examples of the symbolic segregation used by Whites to maintain their control over Blacks. The fourth variable--staff racial composition--is an indicator of real as well as symbolic resources by which control is established. Like the other control-relevant variables, staff racial composition communicates a symbolic message to students at the school, regarding which racial group is in charge. But this variable also has more tangible implications for control. In most schools, the staff regulates access to extra-curricular activities, creates and enforces student discipline policies, and manages teacher/student interaction in the classroom. If teachers show favoritism to same-race students (as some research suggests) or if students believe that teachers show favoritism to same-race students, then staff racial composition may have considerable impact on White control, by providing both real and symbolic resources by which that control can be maintained.

Further, if White hostility is in fact a response to the control threat posed by Blacks, then White hostility probably hinges not just on the percentage of Black students in the school but also on other control-relevant variables, like these four. In schools with a predominantly White staff, schools with more resegregation at the classroom level, schools with more extensive Black busing, and schools that were all-White before desegregation, White control may seem stronger even if the percentage of Black students is relatively high. As a consequence, the relationship between the Black percentage and White students' racial hostility may be weaker when White control, as indicated by these other control-relevant variables, is stronger. In operational terms (as noted in Chapter 1), the expectation is that the Black percentage will be a weaker predictor of White hostility in schools where other control-relevant variables indicate strong White control. That is, points will be more scattered around the regression line because Whites in such schools are less sensitive to the Black percentage.[24]

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[24] Regarding the possibility of nonlinearity, the expectation is that if the J-curve form emerges, the point at which White hostility accelerates will be higher in schools where White control is stronger. If the inverted-U form emerges, the expectation is that White hostility will peak at a higher Black percentage in schools where White control is stronger.

It should be emphasized that race relations in desegregated schools are, of course, not simply a struggle for the control of turf. Race relations in desegregated schools have been studied from a number of perspectives, e.g., reference group theory (Lewis & St. John, 1974; Gerard & Miller, 1975), status characteristics and expectation states (Cohen, 1975; Robbins, 1977), and cooperative dependence (Aronson et al., 1978; Slavin, 1978). Certain variables that are control-relevant have also been useful in research from these other perspectives. For example, staff racial composition has been relevant in attempts to manipulate the perceived status characteristics of Blacks in desegregated schools. When student work groups were supervised by a racially mixed staff instead of an all-White staff, the manipulation was more successful in reducing Blacks' status inequality (Robbins, 1977; Iadicola & Moore, 1980). The argument here is that the control-threat concept offers one viable perspective on race relations in desegregated schools, and this perspective may therefore be quite useful in understanding why the Black percentage and other control-relevant variables are related to White hostility in desegregated schools.

SUMMARY

The concept of a control threat in desegregated settings has emerged partly from theoretical work regarding the relationship between the Black percentage and White hostility. Explanations regarding two forms of nonlinearity in this relationship--an acceleration in White hostility between 20% to 40% Black (the J-curve form) and a peak in White hostility near 50% Black (the inverted-U form)--have each invoked this concept. In addition, Blalock has specified a set of assumptions which underlie his conceptualization of the control threat to Whites. Although his discussion specifically concerned the J-curve form of nonlinearity, it was argued that these assumptions generally apply to other conceptualizations of the control threat as well.

Empirical research suggests that control is, in fact, a salient concern for students in desegregated schools. Students apparently assess their control through indicators such as: which group regulates access to certain school facilities and activities, which group's candidates most often prevail in student elections, and which group (if either) is more favorably treated by the school staff. The definition and perception of such indicators is, of course, a largely subjective matter. But students apaprently assess their control in desegregated schools at least partly through more objective indicators of their "resources." The key variable in this assessment seems to be racial proportions in the school enrollment. But students apparently also consider other indicators of control, including the staff racial composition, classroom resegregation, the extent of Black busing, and the pre-desegregation racial status of the school. It was predicted that when these variables indicate strong White control, the relationship between the Black percentage and White hostility may be weaker, and nonlinearity may emerge at a higher Black percentage (or not emerge at all). This research will examine these possibilities in Chapter 5.

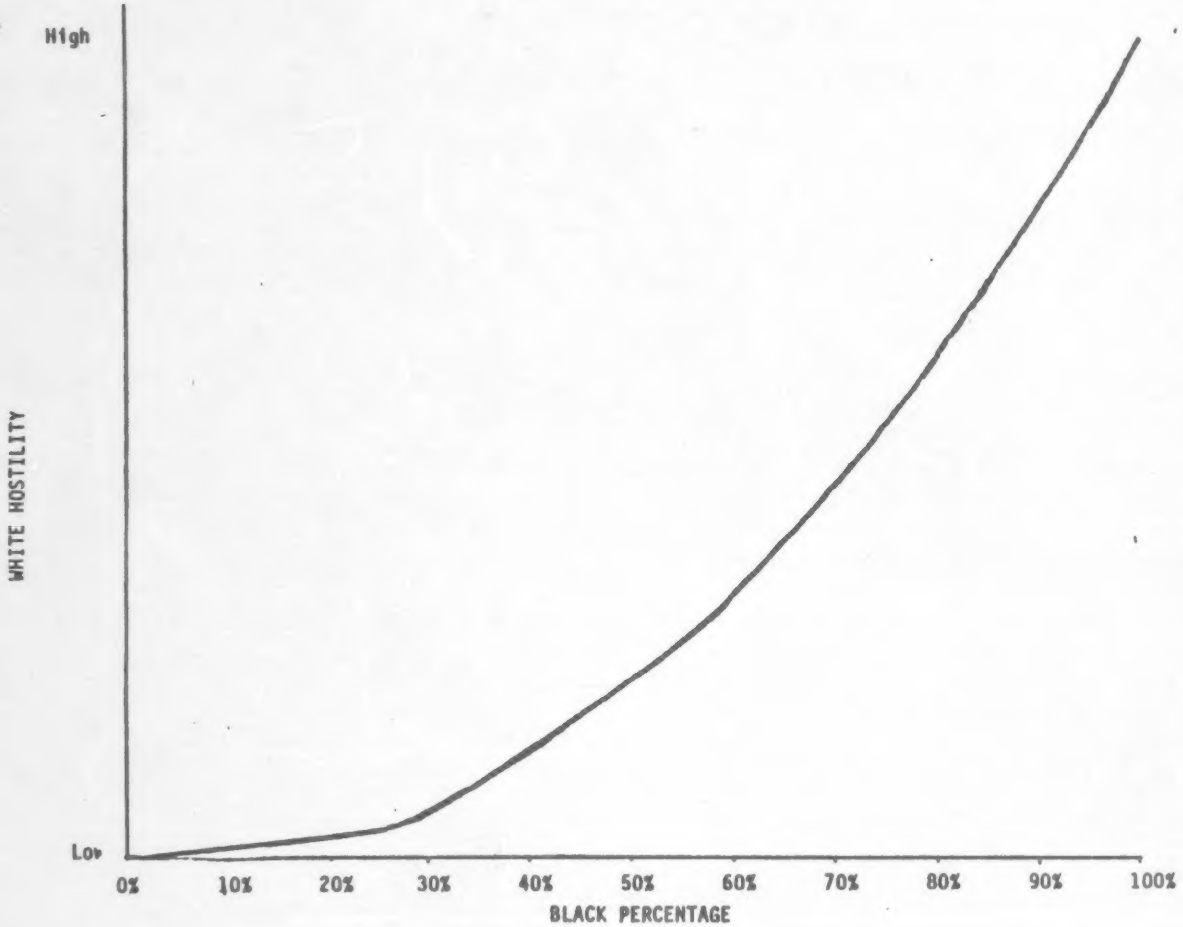

FIGURE 2.1: HYPOTHETICAL J-CURVE FORM OF NONLINEARITY, WITH AN "ACCELERATION POINT" OF 30% BLACK

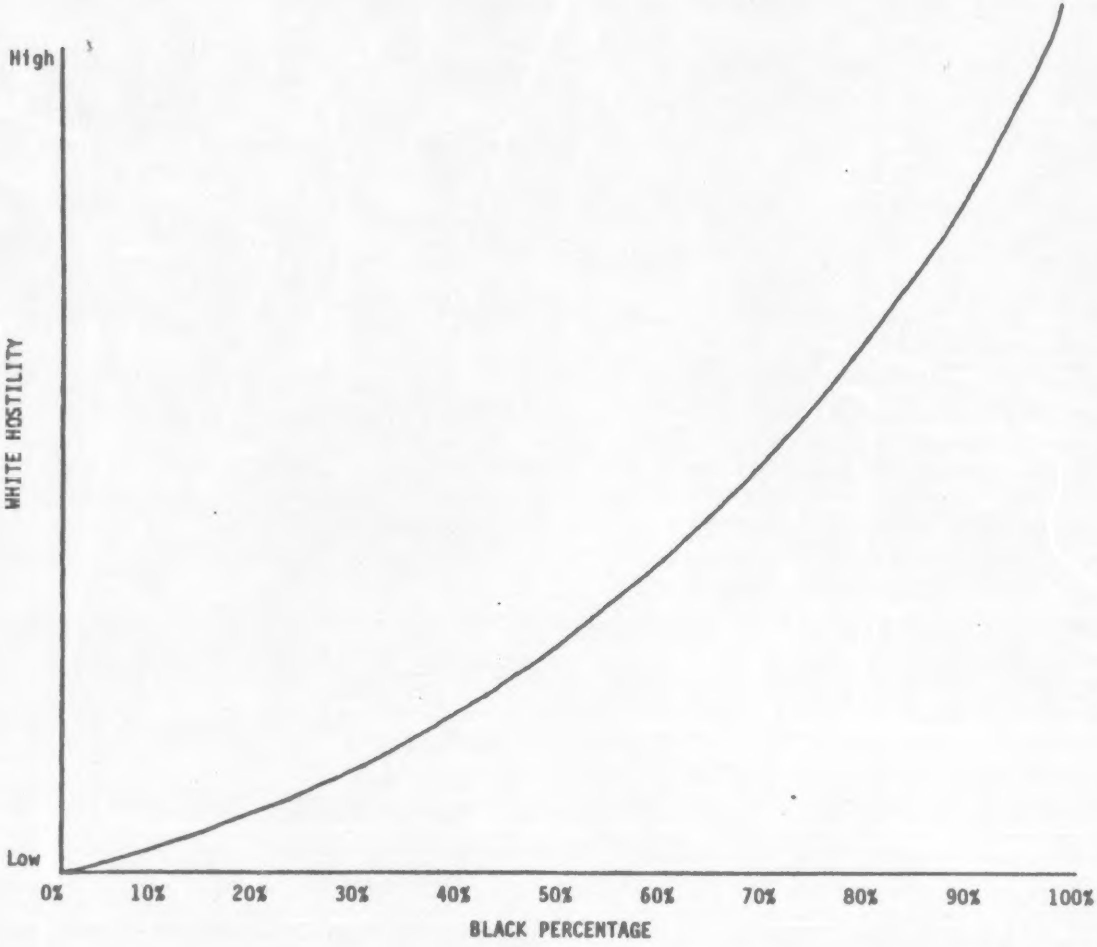

FIGURE 2.2: HYPOTHETICAL J-CURVE FORM OF NONLINEARITY, WITH NO SPECIFIC "ACCELERATION POINT"

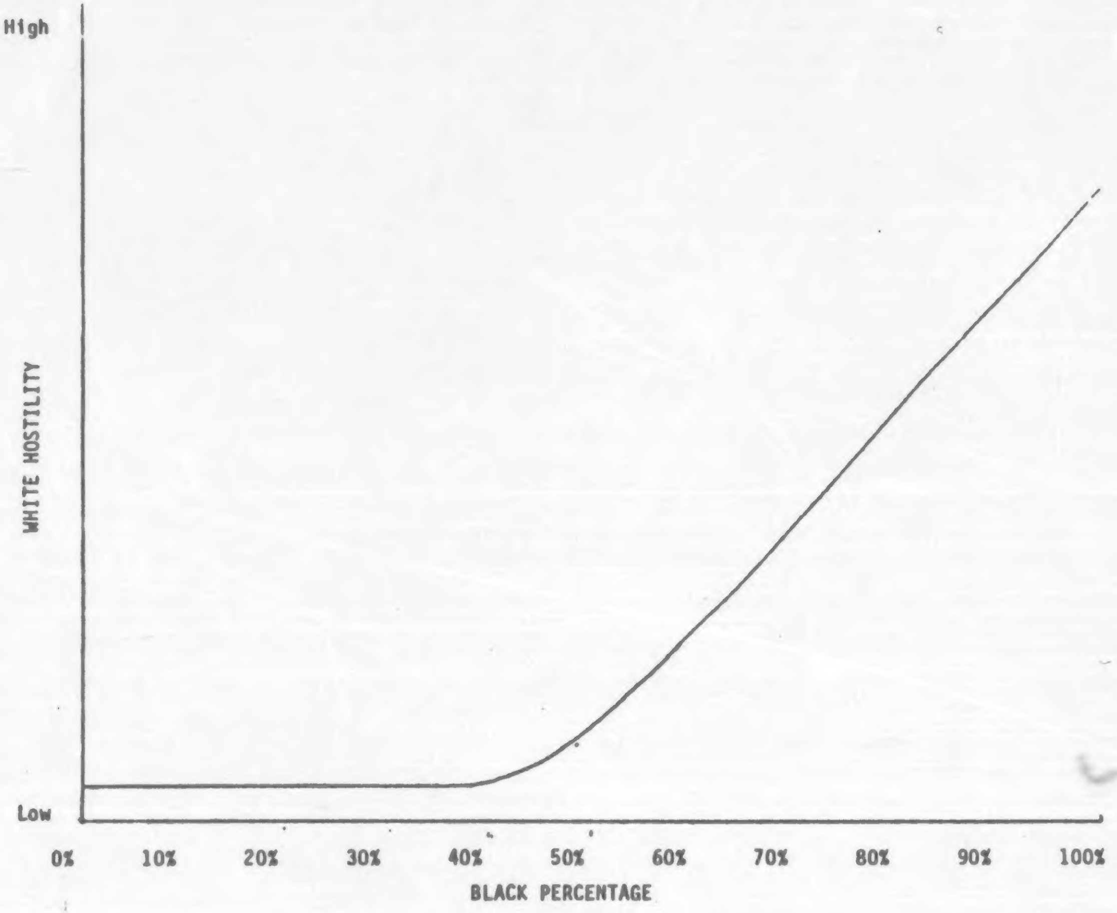

FIGURE 2.3: HYPOTHETICAL J-CURVE FORM OF NONLINEARITY, WITH A "START POINT" OF 40% BLACK

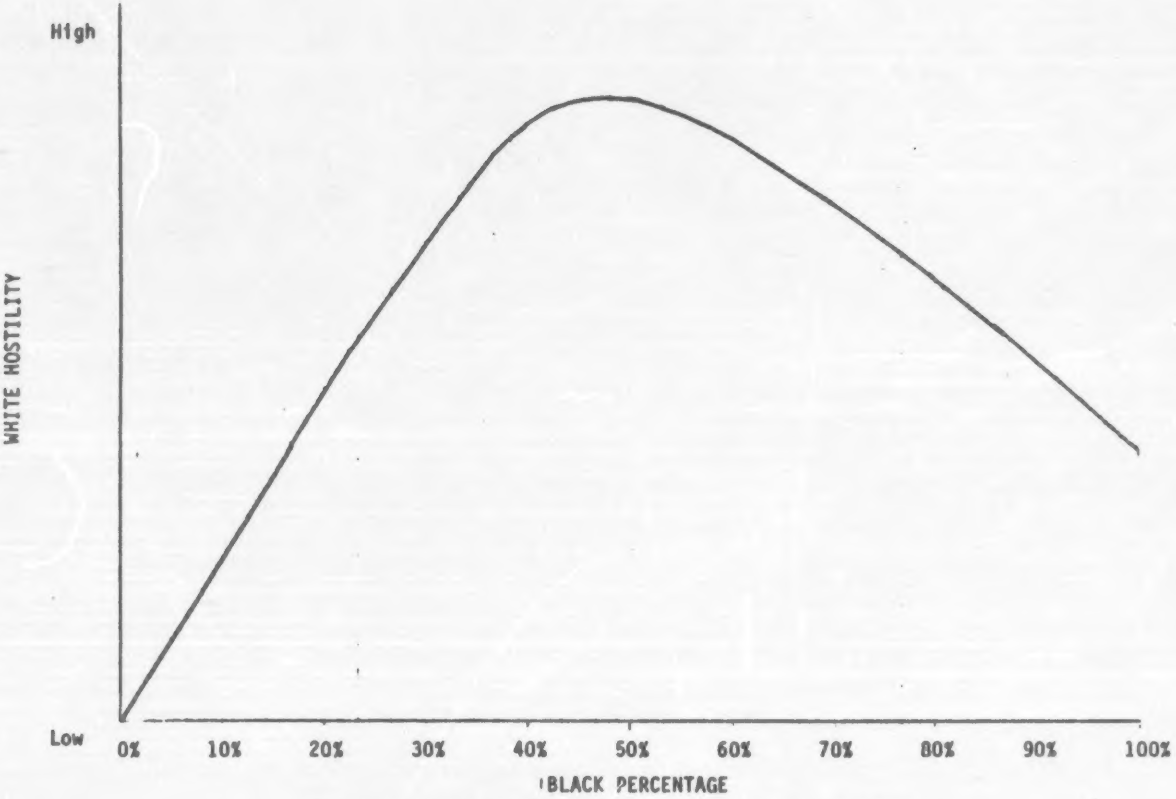

FIGURE 2.4: HYPOTHETICAL INVERTED-U FORM OF NONLINEARITY, WITH A "PEAK POINT" OF 50% BLACK

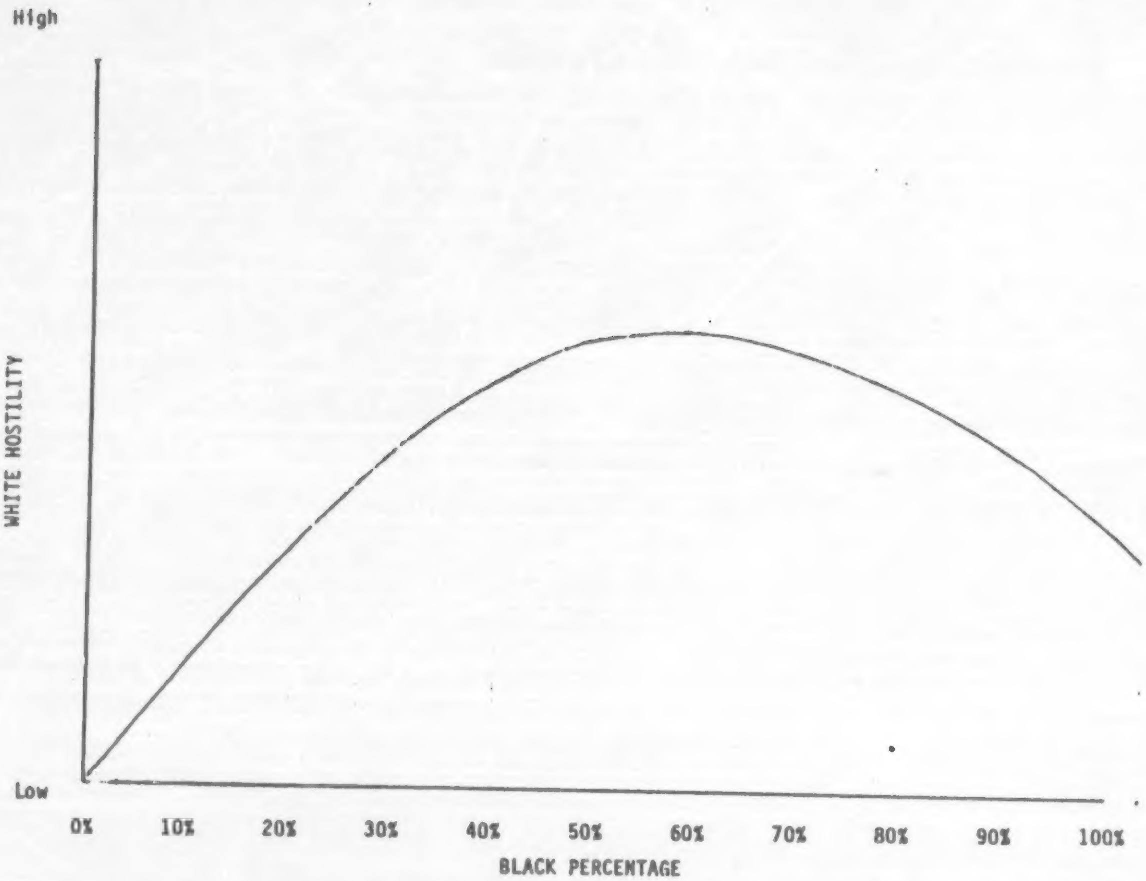

FIGURE 2.5: HYPOTHETICAL INVERTED-U FORM OF NONLINEARITY,
WITH NO SPECIFIC "PEAK POINT"

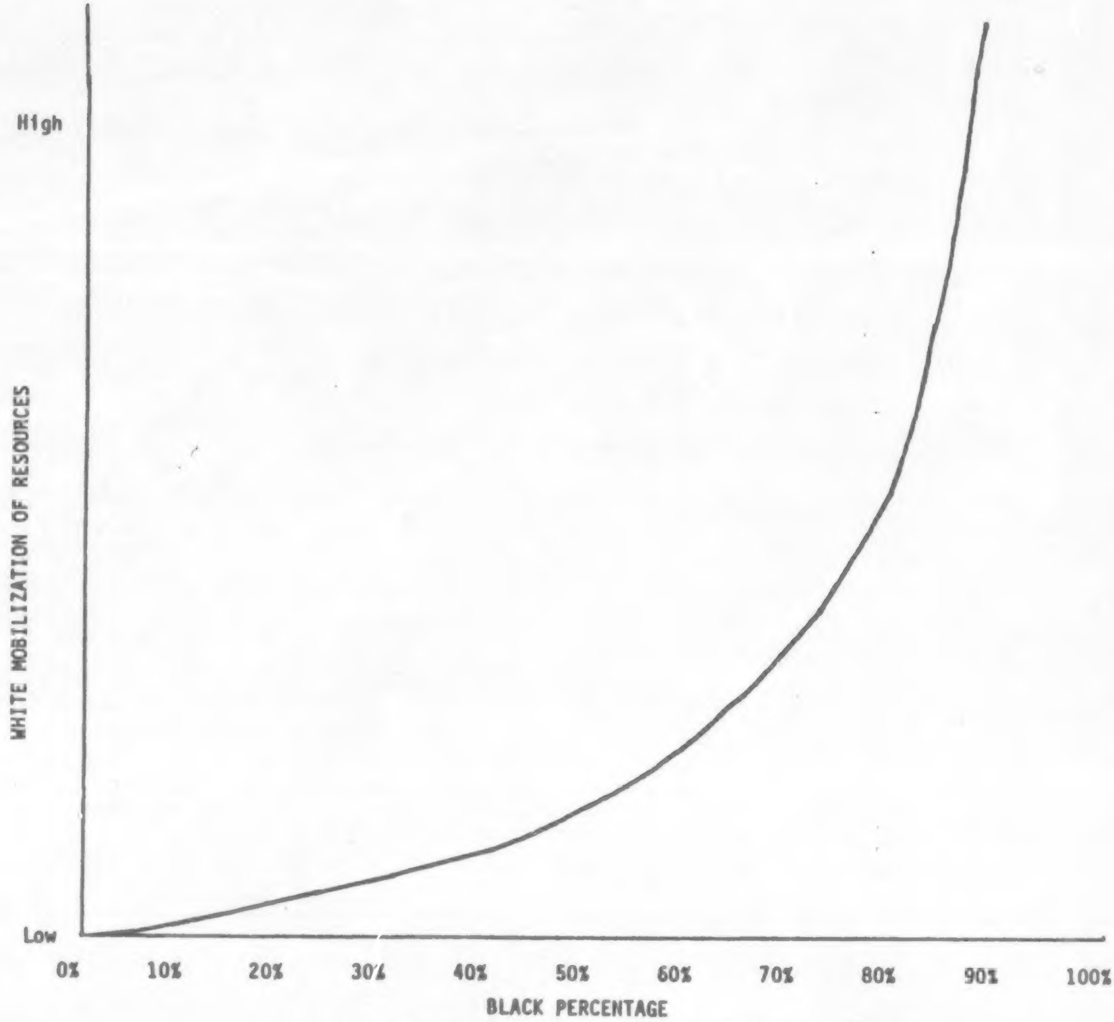

FIGURE 2.6: J-CURVE RELATIONSHIP BETWEEN
THE BLACK PERCENTAGE AND WHITE MOBILIZATION OF RESOURCES

CHAPTER 3

PREVIOUS STUDIES OF THE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITE HOSTILITY

As noted in the first two chapters, the notion that the Black percentage represents a control threat to Whites has been derived primarily from empirical evidence of the relationship between the Black percentage and White hostility. This chapter reviews that evidence in some detail, by (1) describing research that has been conducted in desegregated settings where control is probably a salient issue for Whites, (2) identifying forms of nonlinearity that have emerged in the relationship between the Black percentage and White hostility, and (3) identifying contextual variables other than the Black percentage which have affected that relationship. The key purpose of Chapter 3 is to provide guidance for this dissertation. Specifically, this review will suggest what forms of nonlinearity may emerge in the relationship betweeen the Black percentage and White students' hostility toward Blacks and will suggest what other contextual variables should be included in this research.

In short, Chapter 3 establishes additional empirical grounds for this research. Chapter 2 established the theoretical grounds, in its attention to the control-threat concept, and discussed empirical grounds for applying that concept to White hostility in desegregated schools. Chapter 3 offers additional empirical grounds for this research by reviewing the relationship between the Black percentage and White hostility in desegregated schools and in other settings where the control-threat concept seems relevant.

Previous studies have focused on four main indicators of White hostility: the maintenance of White control in Southern electoral politics, White resistance to school desegregation, White flight from desegregated schools and neighborhoods, and White students' hostility (racial attitudes and sociometric choices) in desegregated schools.[1] As noted in Chapter 2, the key concepts in Blalock's discussion of control in electoral politics (resources, mobilization, and control) have reasonably close analogs in White resistance to school desegreation, in White flight, and in White students' hostility toward Blacks in desegregated schools. That is, the Black percentage seems to threaten White control in those settings much as it threatens White control in electoral politics. Researchers have, for that reason, treated the Black percentage as a proxy for the threat to White control in all four settings. And they have treated Whites' electoral behavior, White resistance to school desegregation, White flight, and White students' racial attitudes and sociometric choices as indicators of Whites' response to that threat.[2]

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[1] There are also a number of studies linking the Black percentage to Whites' economic gains from racial discrimination (e.g., Blalock, 1956, 1957; Frisbie & Niedert, 1977; Glenn, 1963, 1964, 1965, 1966; Jiobu & Marshall, 1971; Stolzenberg & D'Amico, 1977; Turner, 1951). These studies are not reviewed here because White economic discrimination is, it would seem, a response to the economic threat posed by Blacks, not to the control threat.

[2] As argued in Chapter 2, Blalock's version of the control-threat concept does not apply to White flight because that version specifically concerns the maintenance of a constant level of White control as the Black percentage increases. It does not concern the decision to flee when White control weakens. However, the more general, "common sense" conceptualizations of the control threat (cited in Chapter 2, pp.32-37) do seem applicable both to the decision to fight for control and to the decision to flee. That is, it seems reasonable to posit either the fight for control or White flight as possible responses to the control threat posed by Blacks. Accordingly, Chapter 3 includes a review of the literature on White flight.

In four sections, this chapter describes the relationship between the Black percentage and each of these four indicators of White hostility. Each section (1) reviews the empirical relationship between the Black percentage and White hostility, with particular attention to the possibility of nonlinearity in that relationship, (2) reviews the substantive interpretations offered in previous studies for the relationship between the Black percentage and White hostility, and (3) identifies contextual variables other than the Black percentage which have affected that relationship and which represent constructs other than the control threat posed by Blacks. A fifth and final section provides a summary of the evidence regarding these three points.

THE MAINTENANCE OF CONTROL IN SOUTHERN ELECTORAL POLITICS

From his account of Southern politics in the seventy-five years since Reconstruction, V.O. Key (1949) concluded that the "hardcore of the political South" during that period was its Black belt--rural counties in which the population ran forty, fifty, or even eighty percent Black. In the Black belt, he wrote:

> "a real concern of politics, broadly considered, is the maintenance of control by a white minority" (Key, 1949: 5).

To this end, Key claimed, Whites in the Black belt more strongly supported segregationist candidates and more severely suppressed Black voter registration than Whites in Southern counties outside the Black belt.

For instance, in 1948 the racial and economic policies of the Democratic party had strained Southerners' loyalty to the party and spurred the third-party Presidential candidacy of Strom Thurmond. Generally, Thurmond polled his heaviest White support in the Black-belt counties, while predominantly White counties remained loyal to the Democrats (Key, 1949: 329-344). Twenty years before, in the 1928 Presidential election, Democrat Al Smith (a Catholic opposed to prohibition) also polled his heaviest White support in the Black-belt counties. In this election:

> "the whites of the black-belt counties were bound in loyalty to the [Democrats] by a common tradition and anxiety about the Negro. Whites elsewhere could afford the luxury of voting their convictions on the religious and prohibition issues" (Key, 1949: 319; cf. also 318-329).

In short, the race issue, according to Key, kept Black-belt Whites from bolting the party in 1928 and impelled them to bolt the party in 1948.

It was also the Whites of the Black belt who, Key asserted, most extensively supported the disfranchisement of Blacks following Reconstruction. In Texas, for instance, the proportion of Blacks who were registered to vote in 1940 was lower in counties with a higher Black percentage. Key attributed this pattern to the intimidation of prospective Black voters by Whites, for whom the prospect of Black voting was a serious threat to their control over county politics.

In short, these relationships suggest that the Black percentage represents a threat to Whites' political control in the South. The electoral behavior of Black-belt Whites--strong support for segregationists and severe suppression of Black voting--was, Key believed, essentially a response to that threat. Key's work prompted a number of additional studies conceptualizing the Black percentage as a contextual variable that represents a control threat to Whites. These studies have dealt with: White support for segregationist candidates, White support for pro-segregation referenda, and White suppression of Black voter registration.[3]

WHITE SUPPORT FOR SEGREGATIONIST CANDIDATES

Keefe (1956) examined support across four Southern states (Alabama, Louisiana, Mississippi, and South Carolina) for the candidate most opposed to desegregation in the 1948 and 1952 Presidential elections: Thurmond (in 1948) and Eisenhower (in 1952). Keefe acknowledged that non-racial variables affected support for these two candidates. But, he claimed, the "determining issue in elections in these states has nevertheless been...the Negro" (Keefe, 1956: 411). His claim rings true particularly in Thurmond's case, because the Dixiecrat platform,

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[3] There have also been at least three studies of voting by U.S. Representatives from Southern states. Goodall (1958) found that on selected roll call votes between 1937 and 1945, Representatives who dissented from the policy taken by a majority of Southern Representatives tended to come from urban districts. Representatives from rural districts with more than a 30% Black population unanimously opposed any civil rights measure (e.g., an anti-lynching bill in 1937). But Representatives from urban districts over 30% Black were "particularly productive of Southern dissent." In opposition to Key, Goodall argued that the critical contextual variable in Southern Representatives' votes on racial matters was ruralism, not the Black percentage.

MacRae (1958) examined the roll call votes of Representatives from Southern states during the 81st Congress (1949-1950). The relationship between the Black percentage and progressive votes on racial matters (e.g., a fair employment measure and an anti-poll tax bill) was negative and much stronger at the state level than at the district level. MacRae inferred that Southern Representatives to the 81st Congress set racial policy collectively (on a state-wide basis) rather than individually (on a district-by-district basis).

Taking Representatives from eleven Southern and four border states, Feagin (1972) found a negative relationship (r=-.40) between the Black percentage in these states' Congressional districts and Representatives' voting on five civil rights bills or motions during the 88th Congress (1963-1964). After controls for ruralism (proportion of district residents in rural areas) and for economic prosperity (median district family income), the relationship held firm (r=-.38).

> "while denouncing the President, the Supreme Court, and the national Democratic Party for all manner of real or imagined evils, clearly centered on opposition to civil rights. The [Dixiecrats] promised to oppose the police state and executive usurpation and to promote states' rights and segregation" (Bartley, 1969: 33).

Thurmond and Eisenhower ran more successfully in predominantly (at least 55%) Black counties than in predominantly (at least 70%) White counties. When Keefe ranked counties in three of the four states (all except Alabama) into deciles of the Black percentage, the proportion of counties carried by Eisenhower was higher in deciles with a higher Black percentage. Since very few Blacks were voting in these states during those years (Walton, 1972), the aggregate returns can be taken as a measure of White voting. In sum, Keefe found evidence of a positive relationship between the Black percentage and White support for Thurmond and Eisenhower. He did not check for nonlinearity in the relationship between the Black percentage and Eisenhower support, but an examination of Keefe's data turned up no sign of nonlinearity in that relationship.

Heard (1952) also looked at support for Thurmond in 1948, aggregated by state, in all eleven Southern states. Heard stipulated that few Blacks voted in the 1948 election in these states and that, as a result, aggregate returns reflected White voting. The zero-order relationship between the Black percentage and Thurmond support was positive at the state level, as it was in Keefe's county-level study. Like Keefe, Heard did not look for the possible appearance of non-linearity in this relationship. But his data suggest that Thurmond support was much stronger in states over 30% Black. In fact, Heard's study was cited by Blalock as empirical support for his concept of the control threat in Southern electoral politics (Blalock, 1967: 161-162).

Pettigrew & Campbell (1960) have traced the gubernatorial career of Orval Faubus in Arkansas. In the 1954 primary, Faubus had been the "liberal alternative." As such, Faubus got less support in counties with a higher Black percentage[4] (r=-.40). That relationship became positive, though, in the 1958 primary (r=.19), after Faubus' segregationist stand in the Little Rock school crisis. Other contextual variables also correlated with 1958 Faubus support: ruralism (percentage increase from 1940 to 1950 (r=-.31), the percentage of White women in the county labor force (r=-.38), and county Black educational level (r=-.53). The authors concluded that Faubus' victory in the 1958 primary was due both to the "threat" posed by the Black percentage and to his "common man" image among voters in more rural and traditional counties. But Pettigrew & Campbell did not report how ruralism or traditionalism influenced the relationship between the Black percentage and Faubus support.

Two more recent studies have reported the zero-order relationship between the Black percentage and support for another segregationist, George Wallace. Throughout his political career, Wallace almost always ran as the candidate most opposed to desegregation and civil rights. During his 1970 gubernatorial campaign in Alabama, Wallace explicitly invoked the fear which Key had held to be pre-emptive in Southern politics:

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[4] Pettigrew & Campbell actually used the non-White percentage. But as of 1972, 97% of the South's non-Whites were Blacks (Feagin, 1972).

> "If I don't win, them niggers are going to control this state" (quoted in Black & Black, 1973b: 736).

Wallace did bring other issues to bear in his Presidential campaigns, combining "racism and a (white) common-man...style with a general defense of rural Southern small-town values" (Bartley, 1970: 85). But race was still a focal, if underplayed, concern in these campaigns. As one of his supporters reportedly said,

> "When you get right down to it, there's only...one issue, and you spell it n-i-g-g-e-r" (quoted in Wrinkle & Polincard, 1973: 307).

Using election returns from three states, Birdsall (1969) correlated county support for Wallace in the 1968 Presidential election with the Black percentage, ruralism (county percentage living in rural areas), educational level (median school years completed), and income (median family income). In Florida, these latter three variables were strongly correlated with Wallace support (r=-.73 for educational level; r=-.59 for income; and r=.68 for ruralism). These correlations were, in fact, much stronger than the correlation between the Black percentage and Wallace support (r=.12). In North Carolina and Tennessee, the correlations between the Black percentage and Wallace support (r=.78 and r=.47, respectively) were much stronger than the correlations for any of the other three variables.[5]

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[5] For North Carolina and Tennessee, Birdsall reported correlations for these variables: r=.24 for income, in North Carolina; r=.11 for educational level and r=-.04 for ruralism, in Tennessee.

By 1968, Blacks were voting in substantial numbers in the South (Walton, 1972). Thus, the fact that the relationship between the Black percentage and aggregate Wallace support was positive in these states, despite the confounding due to Black votes, provides persuasive evidence that White support for Wallace was markedly stronger in counties with a higher Black percentage.

Schoenberger & Segal (1971), using election returns from all eleven Southern states, found a fairly strong correlation (r=.55) between the Black percentage and 1968 Wallace support in the seventy-seven Congressional districts of those states. This correlation was stronger than correlations for several other contextual variables: educational level (percentage of county residents with less than five years of school, r=.31), income (percentage of county residents with less than $2,000 median family income,[6] r=.52), unemployment (percentage of unemployed males, r=.29), and ruralism (percentage living in rural non-farm areas and percentage living in rural farm areas, r=.31 and r=.43, respectively). Again, it is noteworthy that, in this South-wide study, the relationship between the Black percentage and aggregate Wallace support was positive, despite the substantial participation of Black voters in the 1968 election.

Like the studies by Key, Keefe, and Heard, these two studies of Wallace support reported zero-order correlations between the Black percentage and support for segregationist candidates, without controls for other contextual variables which were also related to White support for segregationists. But the causal significance of the Black percentage would be much clearer if these studies had shown that the Black percentage is still correlated with support for segregationists after other such variables are taken into account. As noted in Chapter 2, the Black percentage in Southern electoral politics may represent primarily a control threat to Whites, while certain other contextual variables (e.g., ruralism and SES) can be taken to represent constructs such as the strength of racial norms and the status threat to Whites. Thus, a unique relationship betweeen the Black percentage and support for segregationist candidates, after other contextual variables are considered, would support the inference that segregationist support is due at least partly to the control threat posed by Blacks.

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[6] Since the Congressional District Data Book which Schoenberger & Segal cited actually presents median family income, what the authors meant by "income" was presumably median family income.

Heer's (1959) analysis of the 1948 Presidential election in Strom Thurmond's home state, South Carolina, turned up a strong correlation (r=.67) between the county Black percentage and support for Thurmond. Since relatively few Blacks voted in that state in 1948 (Walton, 1972), aggregate Thurmond support provides a close approximation of Thurmond support among Whites. Heer identified two other constructs that could account for the variation in Thurmond support: economic conservatism and what he called the "friends and neighbors" effect. Voters who were economic conservatives may have voted for Thurmond (and against Truman's Fair Deal) on the basis of the economic interests rather than race. Also, voters for whom Thurmond was a "local boy" may have favored him regardless of his position on race or any other issue. When Heer controlled for variables representing economic conservitism (e.g., percentage of CIO workers among the county's White manufacturing workers and percentage of tenants among the county's White farm operators) and for a variable representing the "friends and neighbors" effect (viz., the percentage of county Thurmond support in a 1946 gubernatorial primary), the relationship between the Black percentage and 1948 Thurmond support held up fairly well (r=.39). However, Heer did not conclude that White voters were responding to a control threat from Blacks. Unlike most other observers of Southern politics, he took the Black percentage as a proxy for the economic gains which accrue to Whites from the subordination of Blacks.

Black (1973) designated as "core segregationist" those Southern counties which provided the strongest support for the most segregationist candidates in gubernatorial elections between 1954 and 1971. These candidates (such as Ross Barnett and Lester Maddox) expressed unqualified opposition to desegregation and emphasized this opposition throughout their campaigns. In George Wallace's vocabulary, they attempted to "out-nigger" their rivals. Black grouped Southern counties by their Black percentages and found that the proportion of "core segregationist" rural counties was higher among counties with a higher Black percentage. The relationship was "virtually linear" in the upper South (Arkansas, Florida, North Carolina, Tennessee, Texas, and Virginia) and leveled off at 30% Black in the deep South (Alabama, Georgia, Louisiana, Mississippi, and South Carolina). The proportion of "core segregationist" urban counties increased sharply up to 30% Black and then fell sharply in both sub-regions of the South, probably because urban Blacks have been able to mobilize their voting strength more effectively than rural Blacks (Black & Black, 1973a:

74-76). Despite the fact that support for segregationists leveled off in the deep South, Black concluded that the maintenance of control was indeed a salient concern for Whites in rural deep-South and rural upper-South counties with a higher Black percentage.

His research also provided direct evidence that two other contextual variables--sub-region of the South and ruralism--affect the relationship between the Black percentage and White hostility. He offered no substantive interpretation for the effect of sub-region. But the fact that White hostility increased steadily in the upper South and leveled off in the deep South suggests that Whites in the upper-South were more sensitive than deep-South Whites to variation in the county Black percentage.[7] (Wright's (1977) research substantiates this point; see pp. 88-91.) Regarding the effect of ruralism, Black simply noted that urban Blacks were more able to mobilize electoral participation. The greater mobilization of urban Black voters was probably due at least partly to the fact that traditional norms favoring racial discrimination were weaker in those counties.[8]

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[7] The leveling off in rural deep-South counties cannot be attributed to a "ceiling effect." Past 30% Black, the proportion of rural, "core segregationist" counties in the deep South held at about 50%. In the upper South, that proportion was about 50% in the 30%-40% Black range, but it rose to 70% among counties above 60% Black. Alternatively, the leveling off may be due to the participation of rural deep-South Blacks in these elections. This possibility is unlikely for elections prior to 1965 (Walton, 197[illegible]), but is not unlikely for elections after 1965.

[8] Of course, the greater mobilization of urban Blacks was probably due also to greater sophistication and organizational resources among urban Blacks. However, there was a lower proportion of "core segregationist" urban counties than "core segregationist" rural counties even in the 0%-30% Black range (i.e., before there were enough Black voters to reverse the relationship in urban counties). So the variability in segregationist support was apparently due at least in part to the relative weakness of traditional racial norms in urban counties.

Notably, the form of the nonlinear relationship between the Black percentage and segregationist support in the rural deep South is different from the two forms previously described. Segregationist support neither accelerated past 30% Black (the J-curve form), nor decelerated past 50% Black (the inverted-U form). Rather, it leveled off at a "stop point" of 30% Black. This finding, in other words, suggests the existence of a third form of nonlinearity in the relationship between the Black percentage and White hostility. However, it should be noted that this measure of White hostility was not, in precise terms, the proportion of voter support for segregationists. It was the proportion of segregationist counties within successive ranges of the Black percentage. Moreover, there was no control for the possibility that Black votes obscured the relationship between the Black percentage and White support for segregationists--a possibility which seems likely for elections after 1965 (Walton, 1972).

Several studies have analyzed the influence of other contextual variables on the relationship between the Black percentage and aggregate support for George Wallace. In the studies cited above, the bivariate relationship was positive despite the participation of Blacks in the 1968 election. Wasserman & Segal (1973) examined the relationship between the Black percentage and 1968 Wallace support in two subregions of the South, the upper South and the deep South. The relationship was positive in the upper South (r=.43) but negative in the deep South (r=-.31). Apparently, Black voting in the deep South was heavy enough in 1968 to reverse the relationship between the Black percentage and aggregate Wallace support. The authors also found that several other contextual variables were related to Wallace support: educational level (r=-.27 in the deep South; r=.05 (ns) in the upper South), income (r=-.15 in the deep South; r=-.24 in the upper South), and ruralism (r=.24 in the deep South; r=.11 in the upper South). Wasserman & Segal did not offer any substantive interpretations for these relationships, nor did they assess the direct impact of variables other than sub-region on the relationship between the Black percentage and Wallace support. However, the authors did argue that Whites in the deep South have a "greater fear" of Blacks because of the higher Black percentage in that sub-region.

Wrinkle & Polincard (1973) repeated this analysis for counties in Texas, to see if disaggregation into intra-state regions might affect the correlation between the Black percentage and 1968 Wallace support. The correlation across all Texas counties (r=.49) was somewhat stronger than the correlation for counties in east Texas (r=.28)--the part of the state with an economic and social history much like that of the deep South. Several other county contextual variables also correlated with Wallace support: ruralism (r=.18), percentage of the county work force in manufacturing occupations (r=.44), and county educational level (percentage of residents with less than five years of formal education, r=.39). Like Wasserman & Segal, the authors did not control for variables other than sub-region in their analysis of the relationship between the Black percentage and Wallace support. But they concluded that Wallace support was a function of the perceived threat to White control and of Wallace's populist appeal among workers in manufacturing trades. Notably, the relationship between the Black percentage and Wallace support did not reverse itself in east Texas--the state's deep-South sub-region--as it did in Wasserman & Segal's analysis of the deep South as a whole. Apparently, Blacks in east Texas voted in sufficient numbers to weaken the relationship between the Black percentage and Wallace support but did not vote in sufficient numbers to reverse that relationship.

Black & Black (1973b) examined voting returns for Wallace in four Alabama gubernatorial primaries between 1958 and 1962. They regressed county Wallace support on the county Black percentage, the percentage of Blacks who were registered to vote, two measures of county SES (percentage in working-class jobs and percentage in upper-middle-class jobs), and a dummy "friends and neighbors" measure.[9] With all these variables in the equation, the Black percentage had moderate to strong standardized regression coefficients in three of the four primaries (from β =.38 to β=.51). The Black percentage failed to predict Wallace support only in the second 1958 primary (β =.00). Black & Black asserted that in this primary, Wallace failed to establish himself as the most conservative candidate on racial issues (Black & Black, 1973b: 735). It was, in fact, after his defeat in this primary that Wallace vowed, "I'm not going to be out-niggered again" (Frady, 1968: 127). Notably, the authors did not simply take aggregate returns as a measure of White voting. Instead, they entered the percentage of Blacks registered to vote as one of their predictors of Wallace support, thus eliminating the possibility of a confound from

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[9] A "friends and neighbors" county was one in which Wallace polled at least 45% in the first 1958 primary and, in each subsequent primary, polled a percentage exceeding his share of the statewide vote.

Black voting.

In a survey of Southern Whites, Knoke & Kyriazis (1977) examined Wallace support in the 1968 election by regressing Wallace support on the Black percentage in respondents' home counties and several other individual-level variables (e.g., respondents' occupation, income, educational level, and age). The relationship between the county Black percentage and White Wallace support in 1968 was positive in both the upper South (β =.25) and the deep South (β =.15). The fact that this relationship was positive in both sub-regions confirms the argument that the negative relationship which Wasserman & Segal (1973) found between the Black percentage and aggregate Wallace support in the deep South was due to the substantial participation of deep-South Blacks in the 1968 election. The authors concluded that:

> "the political behavior of Southern whites was still governed to some degree by the desire to maintain political domination over the black population. A demogogic candidate such as Wallace could use the race issue, however covertly, to attract the votes of black-belt whites who felt threatened by the numerical strength of the resident black population" (Knoke & Kyriazis, 1977: 904).

Finally, in a survey following the 1968 Presidential election, Wright (1977) obtained data from 1,272 White Southerners and 1,834 Black Southerners. Wright found positive correlations between the 1940 county Black percentage and White support for Wallace (r=.38) and between the 1970 county Black percentage and White support for Wallace (r=.33).[10] After a control for the 1940 county Black percentage, the 1970 Black percentage had no impact on Wallace support (r=.00). But, after a control for the 1970 Black percentage, the 1940 Black percentage still had some impact (r=.20). Wright concluded that Whites' racial attitudes and behavior are strongly rooted in their "formative years of adolescence and early adulthood" (Wright, 1977: 500).

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[10] Wright was apparently willing to accept the "noise" in his data that results from taking the 1940 Black percentage in a county as a contextual measure for respondents who lived there in 1970 but who, in probably many cases, did not live there in 1940.

When Wright separated upper-South respondnets (White and Black combined) from deep-South respondents (White and Black combined), he duplicated Wasserman & Segal's finding that the correlation between the Black percentage (in this case, the 1940 percentage) and Wallace support was positive in the upper South (r=.24) and negative in the deep South (r=-.09). Among White respondents only, the correlation was positive in both sub-regions (r=.32 and r=.19, respectively), as it was in Knoke & Kyriazis' survey of Southern Whites.

In a further analysis, Wright sought to explain the sub-regional differences in the strength of this relationship. As was the case in Black's (1973) study of "core segregationist" counties and in Knoke & Kyriazis' (1977) survey of White support for Wallace, Whites in the upper South (r=.32) appeared to be more responsive to the Black percentage than deep-South Whites (r=.19). Wright's analysis suggested that the 1940 Black percentage at the state level can account for this difference.

> "Many [deep South] whites residing in communities with few blacks nevertheless have had substantial exposure to a segregationist political culture--transmitted through...exposure to...racism displayed in the election campaigns and leadership of state-wide candidates and office-holders" (Wright, 1977: 503).

Wright also regressed Wallace support, first, on the 1940 county Black percentage and the 1940 state Black percentage and, second, on both of these variables as well as respondents' educational level and ruralism (a dummy variable for living within or outside an SMSA). The unstandardized regression coefficients for each Black percentage and Wallace support were only slightly affected by the addition of these other variables. For the county Black percentage, the coefficient dropped from b=1.17 to b=1.03. Also, the county Black percentage interacted with ruralism (Wright, 1976); the Black percentage in rural areas had a stronger relationship to Wallace support (b=1.28) than did the Black percentage in urban areas (b=.43).

Wright sought to explain the relationship between the Black percentage and Wallace support by positing two intervening variables in that relationship. He measured the first variable, peer group influence, by asking respondents about Wallace support among their friends, co-workers, and families. The second variable, racial hostility, has been "implicit in most discussions of the linkage between Black concentration and white support for Wallace" (Wright, 1977: 505). Wright supposed that racial hostility might act as an intervening variable between the Black percentage and Wallace support by affecting respondents' attitudes on such 1968 election issues as open housing, employment, urban riots, and violence. Notably, these two intervening variables are integral in two of the broad theoretical perspectives mentioned in Chapter 1, viz., socialization (peer group influence) and power/competition (racial hostility). Wright has, in effect, asked how useful each of these perspectives is in explaining Wallace support.

When Wright added both of these variables into the regression equation, the effects of both the county Black percentage and the state Black percentage dropped nearly to zero. The impact of peer group influence was greater than the effect of racial hostility. However, the impact of racial hostility is probably underrated in this analysis since, as Wright himself acknowledged (Wright, 1976: 203, Wright, 1977: 505), peer group influence also tapped "hostility toward the norm of racial equality and integration." Indeed, Wright's (1976) more elaborate analysis of the 1968 election suggested that racial issues were most salient for White voters when they lived in rural areas with a high Black percentage. Wright therefore seems to have argued that Black-belt Whites favored Wallace because it was in the Black belt that White supremacist norms (peer group influence) and the perceived threat from Blacks (racial hostility) were strongest. Both variables (and, by implication, the perspectives which they represent) independently contributed to the prediction of Wallace support.

To summarize these 13 studies of White support for segregationist candidates, three points can be made. First, evidence regarding the possibility of nonlinearity can be explored in only three of these studies. Nonlinearity did not appear in Keefe's (1956) study of 1952 support for Eisenhower in four Southern states. Nonlinearity did appear in Black's (1973) study of support for segregationist candidates in the South; support leveled off at a "stop point" of 30% Black in the rural deep South. As noted above, this leveling off may have been due to his method of aggregation or to the confounding of Black and White voting in the aggregate returns. Finally, Heard's (1952) study of 1948 support for Thurmond in elevent Southern states--a study in which Black and White voting were not confounded--uncovered a sharp upswing in Thurmond support at an "acceleration point" of 30% Black. In short, there is not much evidence regarding nonlinearity in the relationship between the Black percentage and White support for segregationists, and the evidence that does exist is not consistent. There is, of course, no way to know what form(s) of nonlinearity might have emerged in other studies if the authors had looked for it. But, in any case, these studies offer no clear direction regarding the existence of nonlinearity in the relationship between the Black percentage and White hostility.

Second, seven of these studies explicitly took the Black percentage as a proxy for the "threat" to White political control (Black, 1973; Black & Black, 1973b; Knoke & Kyriazis, 1977; Pettigrew & Campbell, 1960, Wrinkle & Polincard, 1973; Wright, 1977) or for Whites' "fear" of a relatively large Black population (Wasserman & Segal, 1973).[11] The clearest statement of the "control threat" interpretation appeared in Knoke & Kyriazis' (1977) study of Wallace support. They found that Wallace support was strongest among:

> "black-belt whites who felt threatened by the numerical strength of the resident black population" (Knoke & Kyriazis, 1977: 904).

So, even though most authors did not look for nonlinearity in the relationship between the Black percentage and White support for segregationists, they did consistently invoke the concept of a control threat to interpret the positive linear relationships which they found between those variables.

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[11] In one additional study (Heer, 1959), the Black percentage was taken as a proxy for the economic gains which Whites draw from the presence of a large Black population.

Third, eight of these studies examined the effect of other contextual variables on the relationship between the Black percentage and White support for segregationists. The relationship weakened slightly but was still strong under controls for the "friends and neighbors" effect--the tendency to vote for a local candidate regardless of his positions on the issues (Heer, 1959; Black & Black, 1973b). The relationship between the Black percentage and White support for segregationists also weakened slightly but remained strong under controls for several aggregate SES variables (Heer, 1959; Black & Black, 1973b), e.g., the percentage of CIO members in the county White population, the percentage of farm operatives who were tenants, and the percentage of county residents with less than five years of formal schooling. Heer (1959) took aggregate SES as a proxy for "economic conservatism."[12] The relationship between the Black percentage and White support for segregationists was also stronger in rural areas than in urban areas (Black, 1973; Wright, 1976). Probably, ruralism influenced this relationship both because Blacks have been able to mobilize electoral resources more successfully in urban areas and because traditional norms favoring racial prejudice and discrimination are stronger among Whites in rural areas. Finally, sub-region of the South affected the relationship between the Black percentage and White support for segregationists (Black, 1973; Knoke & Kyriazis, 1977; Wasserman & Segal, 1973; Wright, 1977; Wrinkle & Polincard, 1973); the relationship was stronger in the upper South than in the deep South. According to Wright (1977), Whites in the deep South are less responsive to variability in the Black percentage at the county level because they are more heavily exposed to racist norms at the state-wide level than are Whites in upper-South states.

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[12] Black & Black (1973b) offered no substantive interpretation for aggregate SES.

None of these studies reported any evidence for the effect of these variables on the occurrence of nonlinearity in the relationship between the Black percentage and White support for segregationists.

WHITE SUPPORT FOR REFERENDA FAVORING SCHOOL SEGREGATION

Four studies have examined the relationship between the Black percentage and White support for three referenda on school segregation. In 1956, Virginia held a referendum on earmarking state funds to support segregated private schools. Gates (1962) analyzed returns for this referendum in 98 counties in Virginia. The correlation between the Black percentage and county support for the referendum was positive (r=.49). But when Gates separated counties less than 10% Black, counties between 10% to 40% Black, and counties over 40% Black, the correlation remained positive (r=.50) only in the counties between 10% to 40% Black. In counties under 10% Black, the Black percentage lost its impact on support for school segregation (r=-.15), possibly because Blacks in such low proportions posed no real threat to Whites.[13] In counties over 40% Black, a fairly strong negative correlation emerged (r=-.54), attributable largely to the weight of Negro votes *against* segregation in four [of 31] black-belt counties" (Gates, 1962: 90, emphasis his). Without those four counties, the correlation in the Black belt would apparently have been quite weak.

Pettigrew & Campbell (1960) found a strong correlation (r=.64) between the Black percentage in Arkansas counties and 1956 support for a set of proposals to resist school desegregation (e.g., nullification of the U.S. Supreme Court's desegregation rulings). The authors also reported the zero-order correlation between White support for these proposals and Black educational level (r=-.57). Black educational level was taken as a proxy for the "entrenched tradition of prejudice and discimination" (Pettigrew & Campbell, 1960: 447). Regarding the Black percentage, the authors concluded:

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[13] Another possible reason for this negligible relationship is the severe restriction of the range for the Black percentage.

> "The importance of the Negro ratio is widely recognized.. [A] large concentration of Negroes [is] frequently seen by Southern whites as threatening..." (Pettigrew & Campbell, 1960: 446-447).

In another analysis of returns from the 1956 Virginia referendum, Ogburn & Grigg (1956) extracted the Whites' votes from the total county returns by obtaining estimates of the proportion of Blacks who voted in each county, assuming that all Blacks voted against segregated private schools, and then subtracting that proportion from the total anti-segregation vote in each county. Since 98% of the voters in five all-Black Virginia precincts opposed segregation, their assumption is probably safe. The strong positive correlation between the Black percentage and White support for segregation (r=.71)[14] in 67 of Virginia's 100 counties dropped somewhat (to r=.50) after a control for Black educational level (median number of school years completed by Blacks in the county). Ogburn & Grigg also reported zero-order correlations between White support for segregation and three measures of "Southern traditionalism": county percentage over 65 years old (a "negligible" correlation), the influx of young adults into the county (r=-.47), and ruralism (county percentage living on farms, r=.29).

Texas also held a school segregation referendum in 1956. After controlling for county SES (median family income), ruralism (county percentage in rural areas), and the county Mexican American percentage, Grunbaum (1964) found that the county Black percentage was positively related to county support for segregation in most regions of the state. A negative relationship emerged, though, in east Texas (r=-.33). Grunbaum attributed this relationship to the sizable number of Black voters in that part of the state. He concluded that White support for segregation was more likely in counties with a high Black percentage, in counties that were less prosperous (as measured by median family income), and in counties with a smaller Latin American, Catholic population (as measured by the Mexican American percentage).

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[14] Ogburn & Grigg's correlation is higher than that reported by Gates, possibly because the two studies used different data bases for the same referendum and/or because Gates did not extract White voting from the total county returns.

In summary, none of these four studies provides any evidence on nonlinearity in White support for segregationist referenda.[15] Nevertheless, the Black percentage appears to represent a control threat to Whites, as it did in research on White support for segregationist candidates. This interpretation is explicit, though, only in one of these studies, viz., Pettigrew & Campbell (1960). As noted above, these authors concluded:

> "The importance of the Negro ratio... is widely recognized... [A] large concentration of Negroes [is] frequently seen by Southern whites as threatening..." (Pettigrew & Campbell, 1960: 446-447).

Finally, two contextual variables slightly reduced the relationship between the Black percentage and White support for school segregation: ruralism (Grunbaum, 1964) and county SES (Ogburn & Griss, 1956; Grunbaum, 1964). Ruralism was again taken to represent traditional racial norms. Grunbaum took county SES as an indicator of economic prosperity; in more prosperous counties, Whites were not so threatened by economic competition from Blacks.

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[15] Gates' (1962) data are too heavily confounded by the Black vote to support any inference regarding nonlinearity in the relationship between the Black percentage and White support for the referendum in Virginia.

WHITE SUPPRESSION OF BLACK VOTER REGISTRATION

Several studies have focused on the relationship between the Black percentage and the mobilization of Blacks' electoral resources (i.e., the registration of Black voters). Historically, the percentage of Blacks who are registered to vote in a county has varied with the percentage of Blacks in the county population--first negatively and, after the passage of the Voting Rights Act in 1965, positively.

Price (1957) found a negative relationship between the 1954 county Black percentage and Black voter registration in Florida (r=-.35). More specifically, he concluded that Whites were much more opposed to Black voter registration in counties above 30% Black than in counties below 30% Black (Price, 1957: 39).[16]

Before and during the 1950's, Black voter registration and Black voter turn-out in Tennessee and Alabama (most notably, in Democratic Party primaries) were reportedly suppressed most severely in the Black-belt counties of those states (Strong, 1957; Valien, 1957). Strong observed that:

> "the Negro encounters the most determined resistance in those counties with the highest percentage of Negro population... [T] he white minority will put up the most determined resistance before letting Negro registration reach the point of threatening white control of the county" (Strong, 1957: 401,403).

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[16] Price did not present the data on which he based this conclusion.

Fenton & Vines (1957) discovered that the 1956 parish Black percentage and Black voter registration were negatively related in northern Louisiana, but those two variables were unrelated in southern Louisiana. The authors argued that this pattern was due partly to cultural and economic differences between the two parts of the state. In the north, Protestantism prevailed, and many Blacks were tenant farmers in a plantation economy. But in the south, Catholicism prevailed, and Blacks were more often "free wage-earners." The pattern was also due to "real or imagined fears of possible Negro rule" in the northern parishes (Fenton & Vines, 1957: 708). Finally, their data indicate that, among the northern parishes, Black voter registration was much lower in parishes above 30% Black.

Matthews & Prothro (1963) looked at Black voter registration across eleven Southern states in 1950. The correlation between the county Black percentage and Black voter registration was negative (r=-.46), because in counties with a higher Black percentage, "vague fears of Negro domination" were more intense. Several county SES variables also correlated with Black voter registration, e.g., Black occupational status (r=.23), Black educational level (r=.22), and White educational level (r=-.26).

Matthews & Prothro also found evidence of nonlinearity in the relationship between the Black percentage and Black voter registration--evidence which Blalock cited in his account of the control-threat concept.

> "As the proportion Negro increases beyond 30 percent, Negro registration rates begin to decline very sharply until they approach zero at about 60 percent Negro and above. There would seem to be a critical point, at

> about 30 percent Negro, where white hostility to Negro political participation becomes severe" (Matthews & Prothro, 1963: 29).

The authors reported that the relationship between the Black percentage and Black voter registration held even after county SES variables were controlled. They did not report whether those controls had any effect on the occurrence of nonlinearity in that relationship.

As a follow-up, Matthews & Prothro (1966) surveyed 694 Whites from 25 counties representing the eleven Southern states, asking whether Blacks "ought to be allowed to vote." In the South as a whole, 87% agreed. Taking the percentage of Whites in the county who agreed "quite a bit" as a measure of White favorability to Black voting, Matthews & Prothro found a negative correlation (r=-.51), despite the skewed distribution, between White favorability to Black voting and the county Black percentage. As the Black percentage climbed beyond 30%, moreover, "the proportion of whites favoring...Negro voting drop[ped] very rapidly" (Matthews & Prothro, 1966: 118).

Using more recent figures for 1960, Cnudde (1971) repeated Matthews & Prothro's analysis of the relationship between the Black percentage and Black voter registration in the South. The correlation in 1960 (r=-.33) was not so strong as it had been in 1950. Several county SES variables were again positively correlated with Black voter registration, e.g., county educational level (r=.34) and county income (r=.34). Black voter registration was also lower in more rural counties (r=-.29). Cnudde did not control for any of these variables to see whether the Black percentage had a unique relationship to Black voter registration. Instead, he used the Black percentage as a proxy not just for "fears of Negro domination" but also for the "whole array of social background variables that form the...environments from which existing political patterns" have emerged (Cnudde, 1971: 54). He concluded that:

> "whites are less socialized to democratic values in communities of high Negro density" (Cnudde, 1971: 73).

Despite White resistance, a positive relationship between the Black percentage and Black voter registration became the rule rather than the exception after the Voting Rights Act of 1965 was passed. In a study of voter registration in Alabama, Daniel (1969) found that the relationship between the Black percentage and Black voter registration had been negative in 1960 (r=-.66), but it had reversed itself by 1966 (r=.43). The Voting Rights Act, Daniel claimed, gave Blacks "a greater incentive and opportunity to register" (Daniel, 1969: 280). The presence of Federal examiners and the appearance of Black candidates for state and local offices increased Black voter registration especially where Blacks had their best chances for success at the polls, i.e., in heavily Black counties. Walton (1972) has described this same post-1965 reversal in the relationship between the Black percentage and Black voter registration for all eleven Southern states.

After 1965, Blacks not only registered but also turned out to vote in greater numbers than before (Black & Black, 1973a). In Kernell's (1973) study of two Mississippi elections in 1968 and 1971, there was no relationship between the county Black percentage and Black voter turn-out[17] in 1968 (r=-.04) and a fairly weak relationship between those variables in 1971 (r=.19). But Kernell argued that because these relationships were based on figures for all Mississippi counties, they obscured important patterns in Black turn-out across counties in different Black-percentage ranges. In counties that were under 30% Black, the relationship between the Black percentage and Black turn-out was negative. At 30% Black, the relationship leveled off until, at 60% Black, it became positive. When Kernell divided Mississippi counties into those in which Federal examiners had been present and those in which Federal examiners had not been present, the relationship between the Black percentage and Black turn-out was positive in counties with Federal examiners and negative in counties without Federal examiners. The Black turn-out was highest in Mississippi counties where the population was majority-Black and where Federal examiners had been present. Kernell concluded that Black turn-out increased in counties over 60% Black, especially where Federal examiners had been present, because the clear potential for victory overcame apathy among Black voters. However, as Kernell himself observed, Black educational level (which he took as a measure of "political interest and awareness," i.e., a measure of voter apathy) could also reflect vulnerability to reprisals from Whites. Thus, his research provides no clear indication of whether Black voter apathy or active or potential White suppression of Black voting accounts for the pattern of Black turn-out in Missssissippi.

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[17] Kernell took the county percentage favoring Presidential candidate Humphrey (in 1968) and the county percentage favoring gubernatorial candidate Charles Evers (in 1970) as a measure of Black turn-out.

Salamon & Van Evera (1973) claimed that fear of White reprisals, not apathy, was the barrier which a Black majority and Federal protection overcame. (Cf. also Feagin & Hahn, 1970: 49). These authors reported the results of a survey of Mississippi Blacks classified as occupationally vulnerable or invulnerable to White reprisals. Those Blacks classified as occupationally vulnerable voted less often in 1968 and in 1970 than did those classified as invulnerable, especially in counties over 30% Black. Salamon & Van Evera asserted that this difference was not due to the purportedly greater apathy among people with low-status occupations, since the relationship did not hold for Whites who were similarly classified. Since Salamon & Van Evera simply divided Mississippi counties into those with a Black percentage above 30% and those with a Black percentage at or below 30%, their data do not allow a check on the possibility of nonlinearity in White suppression of the Black turn-out.

Whether or not Whites in the Black belt have attempted to suppress Black registration and turn-out more strongly than Whites elsewhere in the South, Black-belt Whites have apparently responded to increased Black electoral behavior by registering and voting in greater numbers themselves. Although several studies have documented this point, only one of them looks specifically at the relationship between the Black percentage and White turn-out. These studies are, nevertheless, included in this review because they do indicate that Whites are aware of and responsive to the control threat posed by Black voting.

Black & Black (1973a) have shown that, throughout the deep South from 1958 to 1968, increases in White voter registration have matched or outstripped increases in Black voter registration. Of course,

> "not all of the increase in white registration during the 1960's can reasonably be interpreted as a response of the white majority to impending or actual Black mobilization" (Black & Black, 1973a: 37).

In fact, the one part of the South where Black voter registration actually outstripped White voter registration during those years was counties over 30% Black--precisely those counties where Blacks posed the strongest threat to White control. Perhaps, though, more Whites in these counties had already registered, even before the 1960's, specifically because of the threat always posed potentially (but only in recent years actively) by Blacks in those counties.

Feagin & Hahn's (1970) analysis of voter registration in all eleven Southern states between 1963 and 1968 verified Black & Black's work in the five deep-South states.[18] They concluded that:

> "increasing black political activity has apparently stimulated corresponding action among white voters" (Feagin & Hahn, 1970: 46).

Kernell (1973) has looked specifically at the relationship between the Black percentage and White voter turn-out. He found that Mississippi Whites in the elections of 1968 and 1971 turned out to vote[19] more often in counties with a higher Black percentage (r=.42 for 1968; r=.46 for 1971). He concluded that:

> "white voter turnout...largely represents a response to the potential and actual black turnout" (Kernell, 1973: 1315).

Finally, Hammond (1977) conducted a survey of Southern Whites regarding four Presidential elections between 1956 and 1968. The survey assessed (1) how many respondents voted in each election, (2) respondents' perceptions of differences between the two major parties on civil rights and social welfare issues, and (3) respondents' ranking on ruralism, two SES variables (education and occupation), and two attitudinal variables (sense of political efficacy and strength of party identification). For each election, Hammond broke his respondents into subsamples of those who did and did not perceive party differences on civil rights issues. He then regressed the White turn-out on perceived social welfare differences, the two SES variables, ruralism, and the two attitudinal variables. The regression equations underpredicted turn-out for Whites who did perceive a civil rights difference between the parties and overpredicted turn-out for Whites who did not. Hammond concluded that:

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[18] Data presented by Feagin & Hahn allow a crude test of Blalock's assertion that White hostility increases nonlinearly because they seek to maintain a constant power advantage over Blacks. There was considerable variation in the ratio of Black voter registration to White voter registration between 1963 and 1968, across states in any given year and within states over time. In other words, there is no evidence that Whites were able to maintain a constant advantage over Blacks. However, additional data in Feagin & Hahn demonstrated that the presence of Federal examiners in Southern counties substantially increased Black voter registration in 1967. This is only one of several variables that could reduce the correspondence between Whites' motivation to maintain their advantage and their actual ability to do so.

[19] Kernell did not describe his measure of White turn-out.

> "...it is precisely those [Whites] who are aware that elections offer them a choice on civil rights who have been most activated. The increase in white voter participation...appears largely a response to the mobilization of blacks into political participation" (Hammond, 1977: 24).

Hammond did not report the White turn-out by the Black percentage in Whites' home counties, but his work supports Kernell's assertion that the positive relationship between the Black percentage and White turn-out is at least partly due to Whites' cognizance of the political threat posed by Black voting.

In summary, these fourteen studies provide evidence for nonlinearity in the relationship between the Black percentage and White opposition to Black voting, support the interpretation of the Black percentage as a control threat to Whites, and pinpoint other contextual variables that are related to White opposition to Black voting. First, the possibility of nonlinearity can be explored in four of these studies. Three studies (Fenton & Vines, 1957; Price, 1975; Matthews & Prothro, 1963) looked at Black voter registration prior to 1965 (in Louisiana, in Florida, and throughout the South). The other study (Matthews & Prothro, 1966) looked at Whites' attitudes toward Black voting in 1966. In the three studies of Black voter registration, there was a sharp drop in registration among counties over 30% Black. In the study of White attitudes toward Black voting, Whites were much more hostile to Black voting in counties over 30% Black. These studies thus demonstrate a striking correspondence of "acceleration points" in one indirect indicator of White hostility (Black voter registration) and in another, more direct indicator (White attitudes toward Black voting). Other pre-1965 studies of Black voter registration reported only linear measures of association between the Black percentage and Black voter registration and left the possibility of nonlinearity unexplored. Post-1965 studies clearly indicate that Black voters have mobilized more successfully in majority-Black counties. Probably, this more recent pattern has emerged despite continued White resistance. But, in any case, rates of Black voter registration are obviously no longer useful as an indicator of White suppression of Black voter registration. Consequently, it seems pointless to look for nonlinearity in post-1965 studies.

Second, in seven of these studies (Hammond, 1977; Kernell, 1973; Fenton & Vines, 1957; Feagin & Hahn, 1970; Black & Black, 1973a; Strong, 1957; Matthews & Prothro, 1963), the Black percentage was posited specifically as a threat to White control. The concept of a control threat was most prominent in Fenton & Vines' (1957) study of Black voter registration in Louisiana in 1956. In that study, the Black percentage represented "real or imagined fears of possible Negro rule." Two of these studies (Kernell, 1973; Salamon & Van Evera, 1973) suggested that, even after 1965, variation in Black voter registration was due in part to the fear of possible reprisal from Whites seeking to maintain their control over local politics. And four of these studies (Black & Black, 1973a; Feagin & Hahn, 1970; Kernell, 1973; Hammond, 1977) indicated that recent voter registration among Whites is in part a response to Black voter registration. In short, these studies clearly support the inference that White suppression of Black voter registration in the South and Whites' own rates of registration are in part a reaction to the control threat posed by Blacks in heavily-Black counties.

Third, three of these studies found that variables other than the Black percentage affected Black voter registration: county SES (Matthews & Prothro, 1963), ruralism (Hammond, 1977), and region of the state (Fenton & Vines, 1957). No substantive interpretation was offered for the first two variables. Fenton & Vines (1957) saw region of the state (in Louisiana) as a proxy both for differences in the economic system and for differences in culture (Catholic vs. Protestant) within the state. Controls for county SES and ruralism did not weaken the relationship between the Black percentage and Black voter registration. But region of the state interacted with the Black percentage. In the Protestant (northern) part of the state, where a plantation economy prevailed, the relationship between the Black percentage and

Black voter registration was negative. In the Catholic (southern) part of the state, where the economy was more progressive, there was no relationship between those variables.

None of the studies cited here looked at the influence of these or other variables on the occurrence of nonlinearity in the relationship between the Black percentage and White opposition to Black voting.

SUMMARY: THE MAINTENANCE OF CONTROL IN ELECTORAL POLITICS

First, the 31 studies reviewed in this section suggest that the Black percentage is in fact a salient contextual characteristic in Southern electoral politics. In counties or states within a higher Black percentage, Whites have more strongly supported segregationist candidates, more strongly favored prosegregation referenda, and more effectively suppressed Black voter registration. Sixteen of these studies explicitly posited the Black percentage as a control threat to Whites. In Fenton & Vines' (1957) words, the Black percentage represented "real or imagined fears of possible Negro rule." And Knoke & Kyriazis (1977) found that Whites' support for George Wallace was strongest among "black-belt whites who felt threatened by the numerical strength of the resident black population."

Second, seven of these studies provided evidence regarding nonlinearity in the relationship between the Black percentage and White hostility. In one study (Keefe, 1956), the relationship between the Black percentage and 1952 support for Eisenhower (the more segregationist candidate) was essentially linear in four Southern states. In five other studies (Heard, 1952; Fenton & Vines, 1957; Price, 1957;

Matthews & Prothro, 1963, 1966), the relationship between the Black percentage and White hostility (support for Strom Thurmond, opposition to Black voter registration, and opposition to Black voting) sharply accelerated at 30% Black. Finally, in one study (Black, 1973), White support for segregationist candidates leveled off at 30% Black in the rural deep South. Notably, the method of aggregation and/or the confounding of Black and White votes in this study may account for this form of nonlinearity. There is, of course, no way to know whether those studies that did not look for nonlinearity in this relationship would have found it and no way to know what form(s) of nonlinearity would have appeared. But, in general, these studies do indicate that Whites' response to the control threat in electoral politics sometimes shows the J-curve form described in Chapter 1.

Third, fourteen of these studies identified other contextual variables that are related to White hostility in electoral politics. These contextual variables, and the constructs which they were taken to represent, are:

(1) Aggregate SES: economic conservatism, economic competition, and the status threat posed by Blacks (Heer, 1959; Black & Black, 1973b; Grunbaum,1964; Ogburn & Grigg, 1956; Matthews & Prothro, 1963);

(2) Friends and Neighbors Vote: the tendency to favor a local candidate regardless of his/her positions on campaign issues (Heer, 1959; Black & Black, 1973b);

(3) Ruralism: the strength of norms regarding racial prejudice and discrimination (Black, 1973; Grunbaum, 1964; Hammond, 1977; Wright, 1976, 1977);

(4) Sub-region of the South: the strength of norms regarding racial prejudice and discrimination[20] (Black, 1973; Wasserman & Segal, 1973; Wrinkle & Polincard, 1973; Knoke & Kyriazis, 1977; Wright, 1977);

(5) Region of the state (Louisiana): differences between Catholicism and Protestantism regarding racial norms, different levels of reliance on traditional plantation economy (Fenton & Vines, 1957).

The effects of these variables on the relationship between the Black percentage and White hostility were as follows. Under controls for SES and the friends and neighbors vote, that relationship weakened slightly but was still significant. Also, the relationship appeared to be stronger in rural areas than in urban areas and stronger in the upper South than in the deep South. And finally, the relationship between the Black percentage and White hostility was significant in the more traditional, Protestant region of Louisiana but not in the more progressive, Catholic part of the state.

It is not being claimed here that these variables will necessarily affect the relationship between the Black percentage and White students' hostility in desegregated schools. But the effects which emerged in these studies of White hostility in electoral politics suggest that it may be important to include such variables in this research. These and other contextual variables will be discussed in more detail in the concluding section of this chapter. It should be noted here, though, that none of these studies looked for the effects of these variables on the occurrence of nonlinearity in the relationship between the

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[20] Racial norms are probably stronger in the deep South than in the upper South. But the relatively high level of White hostility throughout the deep South may, as Wright (1977) argued, render Whites in that sub-region less responsive to variability in the Black percentage.

Black percentage and White hostility in electoral politics.

WHITE RESISTANCE TO SCHOOL DESEGREGATION

In the year of the Supreme Court's Brown decision, Ashmore (1954) wrote that the percentage of Blacks in a local population

> "is not a final determinant of racial attitudes, but it is perhaps the most powerful single influence, for the practical results of [school] desegregation depend heavily upon it" (Ashmore, 1954: 128).

The progress of school desegregation in the years after Brown seems to sustain this point. In communities with a higher Black percentage, desegregation was implemented later, and was less extensive, than it was in communities with a lower Black percentage.

The studies reviewed in this section are divided into three sets. One set covers the relationship between the Black percentage and the extent of school desegregation. Another set covers the relationship between the Black percentage and the timing of desegregation, i.e., the year in which desegregation was first implemented. A third set of studies covers the relationship between the Black percentage and court decisions regarding the extent of desegregation. The assumption in all of these studies is that the extent and timing of school desegregation reflect, in large part, the underlying degree of White resistance to school desegregation. Since there are relatively few (11) studies in this section, the summary for these studies appears only after all eleven of them have been reviewed.

THE EXTENT OF SCHOOL DESEGREGATION

Cochran & Uhlman (1973) have examined the relationship between the percentage of Blacks in 1960 and the extent of school desegregation in 1967-68, for 94 counties in North Carolina. Measuring school desegregation as the proportion of the county's Black students enrolled in desegregated schools, they found a strong negative correlation (r=-.83) between the county Black percentage and the extent of school desegregation. A scatterplot revealed that this relationship was not linear. Instead,

> "counties with very low black populations have extremely high percentages of blacks attending integrated schools. As the proportion of blacks increases, levels of integration fall off rapidly...But, as the percent black increases still further, the rate of decline in integration begins to level off..." (Cochran & Uhlman, 1973: 45).

In short, Cochran & Uhlman found that the increase in "local resistance" (Cochran & Uhlman, 1973: 48) to school desegregation leveled off as the Black percentage increased (though they identified no particular "stop point"). Cochran & Uhlman explicitly distinguished this form of nonlinearity from the J-curve form (i.e., accelerating White hostility). Citing Blalock's distinction between a control threat and an economic threat, Cochran & Uhlman argued that since education is vital to "economic opportunity in modern society," school desegregation represents an economic threat to Whites. As noted in Chapter 2, Blalock did indeed predict that when Whites are faced with an economic threat, the increase in White hostility will decelerate as the Black percentage increases. However, in the South, Whites initially resisted school desegregation at least partly because it represented a threat to the symbolic status boundary between Whites and Blacks. That boundary is one of the indicators which Blalock cited in his conceptualization of the control threat posed by Blacks (Blalock, 1967: 159-168). So school desegregation was probably not just an economic threat to Whites. It was also, and perhaps primarily, a control threat. Another possible explanation for the leveling off in White hostility in this study is that a "ceiling effect" precluded further increases. In counties that were about 30% Black, White resistance (as indicated by the extent of desegregation) was already very high. So, in counties over 30% Black, there was virtually no room for White resistance to intensify any further.

Florin (1971) has reported the relationship between the Black percentage and the extent of school desegregation in 1964-65, for ten Southern states (all states in the Confederacy except Texas). Measuring school desegregation as the proportion of a state's Black students in desegregated schools, he found that desegregation was much less extensive in states with a higher Black percentage (r=-.74).

> "A simple explanation might be that the white power structure felt that it had more to lose if it accepted desegregation if the size of the Negro population was large. However, the situation is far more complex, for the heavily Negro counties in the South also tend to be rural, poor, and relatively isolated. Such locations are often late acceptors in a modernization diffusion process" (Florin, 1971: 143).

In other words, the Black percentage is only one of several contextual variables that may influence White resistance to school desegregation.[21]

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[21] It should be noted that although the relationship which Florin reported between the Black percentage and school desegregation was based on state-level data, his discussion of that relationship focused on the county level. His comments on the meaning of the relationship seem appropriate, though, at either level of analysis.

Further, the Black percentage and these other variables seem to represent, in Florin's view, different theoretical constructs. He believed that the Black percentage represents a threat to the "white power structure" but that variables like ruralism and SES represent receptivity to modernization.

Florin's research underscores the necessity of including other contextual variables in the analysis of White resistance to school desegregation. Further research has done so. Matthews & Prothro (1964) examined relationships between several county contextual variables and school desegregation in the eleven Southern states in 1960. Measuring the extent of school desegregation simply as the presence or absence of any desegregation in the county in 1960, Matthews & Prothro found that several measures of aggregate SES were positively related to school desegregation: median non-White income (r=.29), median White income (r=.28), and median non-White education (r=.28). In addition, ruralism (percentage of the county population in rural areas) was negatively related to school desegregation (r=-.30). And finally, the relationship of primary interest here--the relationship between the Black percentage and school desegregation--was negative, as expected (r=-.26).

A follow-up to this study (Prothro, 1972) re-examined these relationships using a more stringent definition of desegregation, viz., the 1968 proportion of the county's Black students in schools at least 20% White. The relationship between ruralism and school desegregation was still negative but considerably weaker (r=-.08). Relationships between county SES variables and school desegregation held (r=.28 for median non-White income, r=.21 for median White income, and r=.47 for median non-White education). A fourth SES variable--the difference between White and Black median education--emerged as another strong predictor of school desegregation (r=-.53). Finally, the relationship between the 1950 Black percentage and school desegregation was much stronger in 1968 (r=-.68). Prothro concluded that the less rural counties had, in 1960, been more willing "to accept merely symbolic compliance with desegregation decrees" (Prothro, 1972: 360). But under his more stringent definition of desegregation, he argued, ruralism no longer differentiated levels of "repression" of school desegregation. Instead, the more telling variables were SES variables and the county Black percentage. For Prothro, the SES variables represented the strength of traditional norms regarding race--"the familiar syndrome of county characteristics associated with deep-rooted and persistent bigotry" (Prothro, 1972: 360).[22] Though Prothro did not say so, the strong relationship between the Black/White education gap and school desegregation suggests that Whites were particularly opposed to school desegregation when it would entail a more serious status loss to Whites. Finally, in explaining the relationship between the Black percentage and school desegregation, Prothro simply described counties with a higher Black percentage as "Black-fearing" counties.

Since the Matthews & Prothro study and the later Prothro study reported only zero-order correlations, they only hint at what the relative importance of these variables might be. Giles (1975) has reported the relationship of the Black percentage and district size to school desegregation in over 3,000 school districts across the country. Calculating the difference between the proportion of Blacks in each school in a district and the proportion of Blacks in the district as a whole, Giles measured desegregation as the sum of the absolute values of the differences for all schools in that district. Where that sum was smaller, desegregation was more extensive. For districts in the South, desegregation in 1968 was negatively related both to the district Black percentage (r=-.60) and to district size (r=-.21). For districts in Northern and Western states, desegregation was again related negatively (though much less strongly) to the district Black percentage (r=-.17) and to district size (r=-.28). For Border-state districts, desegregation was negatively related to district size (r=-.43) but was not significantly related to the district Black percentage (r=-.05). By 1970, these relationships had shifted greatly in the South. The relationship between the Black percentage and desegregation disappeared (r=.00), but the relationship between district size and desegregation strengthened (r=-.46). For districts in the other two regions (North/West and Border), the relationships for the Black percentage and district size were quite similar in 1968 and 1970 (r=-.15 and r=-.27, respectively, for the North/West in 1970; r=.07 and r=-.45 for the Border states in 1970). When Giles controlled for either contextual variable in the relationship between the other variable and school desegregation, these relationships remained in essence the same for each region (Giles, 1975: 415n).

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[22] In the earlier study, Matthews & Prothro (1964) described the SES variables not as proxies for bigotry but as indicators of "leadership potential" (Matthews & Prothro, 1964: 146). Perhaps Matthews & Prothro would accept the conclusion that SES variables represent the strength of racial norms, while egalitarian leadership is part of the process by which those norms are weakened in high-SES counties.

Giles did not conclude from these patterns that the Black percentage, as a proxy for the "economic, political, or social threat" posed by Blacks (Giles, 1975: 412), was no longer an important factor in White resistance in desegregation. Instead, he believed that the key to these patterns lay in the degree to which the federal government (primarily HEW) enforced desegregation requirements. Between 1968 and 1970, the extent of desegregation among Southern districts (as Giles measured it) more than doubled--"a dramatic increase that can reasonably be attributed only to federal enforcement efforts" (Giles, 1975: 415). These efforts had, it seemed, overpowered White resistance which had so effectively suppressed Southern desegregation in heavily Black districts before 1970. Turning to the nonsignificant relationships between the Black percentage and desegregation in the Border states, both in 1968 and in 1970, Giles explained that "enforcement efforts were already eroding segregation in the Border states in 1968" (Giles, 1975: 416). On the other hand, there was a "lack of federal efforts to desegregate" districts in the North and West before 1970 (Giles, 1975: 416). So, although the Black percentage seems to have been a less powerful source of resistance to desegregation outside the South, it was still significantly related to the extent of desegregation in the North and West, both in 1968 and in 1970. Finally, the rather strong relationships between district size and desegregation in each region were, Giles reasoned, due to the greater difficulty of desegregating larger districts.

> "The logistics of desegregation in a small district are simply less complex than in a large district" (Giles, 1975: 412).

This was especially clear in the South, for even though the federal government was more committed to desegregating Southern districts in the late 1960's, desegregation was considerably less extensive in large Southern districts than in small Southern districts during those years.

Since Giles presented a scatterplot of relationships between the Black percentage and desegregation in each region, it is possible to check for nonlinearity in those relationships. There is no sign of nonlinearity in the negative relationships for the North/West, for either 1968 or 1970. The 1968 relationship between the Black percentage and desegregation in the South shows that desegregation declined slowly in districts that were 0% to 15% Black. In districts over 15% Black, desegregation declined more precipitously but steadily, up to 55% Black. Desegregation leveled off in districts over 55% Black, where there was very little desegregation at all.[23] Thus, there is a slight suggestion of an "acceleration point" in White resistance to desegregation at 15% Black. But, past 15% Black, White resistance did not continue to accelerate. It simply increased steadily to 55% Black, at which point (as in Cochran & Uhlman's (1973) study) it asymptoted.

In an analysis of school desegregation in eleven Southern and six Border states, Vanfossen (1968) measured desegregation as the 1966 proportion of a state's Black students who were enrolled in schools where at least some Whites were also enrolled. The correlation between the state Black percentage and desegregation in 1966 was quite strong

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[23] The overriding influence of federal enforcement makes it pointless to look for nonlinearity in White resistance for the South in 1970 or for the Border states in either 1968 or 1970.

(r=-.78), as was the correlation between the state-wide Black/White difference in SES and school desegregation (r=-.75). When Vanfossen controlled for the Black/White SES difference, the relationship between the Black percentage and school desegregation dropped somewhat but was still rather strong (r=-.42). She concluded that desegregation was less extensive in states with a higher Black percentage because, in those states, Blacks constituted a "greater threat" to Whites and because norms favoring White supremacy still prevailed.

Vanfossen also observed that school desegregation was minimal in states over 20% Black. Here again, as in Giles' (1975) and Cochran & Uhlman's (1973) studies, nonlinearity in the relationship between the Black percentage and White resistance to school desegregation appears to be due to a "ceiling effect." White resistance had already asymptoted at a rather low Black percentage.

Dye (1968) has reported on school desegregation in 55 Northern and Southern cities in 1965-66. His measure of desegregation was the proportion of the city's Black students that were in schools less than 90% Black. In the North, the negative correlation between desegregation and the city Black percentage was strong (r=-.76), as were the positive correlations between desegregation and several city SES variables (educational level, r=.46; white-collar employment rate, r=.56; Black educational level, r=.42) and the negative correlation between desegregation and city size (r=-.49). The relationship between the Black percentage and desegregation weakened slightly but remained significant when all these other variables were controlled (r=-.60). In the South, the relationship between the Black percentage and desegregation was nonsignificant but high (r=-.46; partial r=-.66). Dye treated the city SES variables as indicators of White support for the "welfare of the community." He concluded (despite the nonsignificant relationship in the South) that the Black percentage is the "singlemost important determinant of pupil...segregation in Northern and Southern cities" (Dye, 1968: 151). To explain this conclusion, Dye observed, rather vaguely, that "large Negro enrollments...generate strong demands and place important constraints on school systems in racial matters" (Dye, 1968: 152).

THE TIMING OF SCHOOL DESEGREGATION

Two studies of the relationship between the Black percentage and the year of desegregation implementation start from the assumption that White resistance to desegregation is a major reason for variability in the timing of desegregation. That is, Whites in counties which started desegregation at a later date were more resistant to desegregation than Whites in other counties of the same state.[24]

Pettigrew (1957), taking the Black percentage as an indicator of "perceived threat" (Pettigrew, 1957: 683), found that urban counties in Missouri and Kentucky (i.e., counties with more than half of their populations in urban areas) were all desegregated by 1957. Thus, the "Negro ratio appears not to have been a crucial factor...in these counties" (Pettigrew, 1957: 686). Pettigrew believed that urban counties accepted desegregation because they were more prosperous than rural counties; hence, Blacks posed a lesser economic threat in urban counties. In the rural counties of these two states, the Black percentage (trichotomized) did correlate with the year of desegregation implementation. In Kentucky, the relationship was positive, as expected.[25] But in Missouri, the relationship was negative. Possibly, the studies by Matthews & Prothro (1964) and Prothro (1972) provide a partial explanation for this discrepancy. In those studies, the less rural counties appeared more willing to accept token levels of desegregation. In Pettigrew's study, the definition of desegregation was certainly "token"--a county was considered desegregated if only one Black student was enrolled in an otherwise all-White school anywhere in the county. Since Missouri was a less rural state than Kentucky (Pettigrew, 1957: 688), it is perhaps not surprising that the usual negative relationship between the Black percentage and desegregation (at token levels) did not emerge in Missouri's rural counties. But why did that relationship reverse itself? Possibly, the answer lies in the fact that the range of the community Black percentage in this study was so low; no community was over 22% Black. Thus, the Black percentage may not have been high enough to threaten Whites in Missouri. Instead, it may have been just high enough to facilitate desegregation in that state.

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[24] Confining the comparison to a within-state analysis ostensibly controls to some extent for other variables (e.g., region, desegregation policies established by state education agencies) that could affect the timing of desegregation.

Subsequent research by Pettigrew & Cramer (1959) added more information on this matter. Again using this token definition of desegregation, they examined relationships between the county Black percentage and the timing of desegregation in five Southern states: Kentucky,

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[25] Pettigrew reported significance levels, but he did not report his measures of association.

Missouri, Oklahoma, Texas, and West Virginia. The zero-order correlations were positive, as expected, in all five states (including Missouri). The correlations ranged from r=.17 to r=.49. After controlling for ruralism (proportion of county residents in rural areas) and the proportion of White women in the county's labor force, Pettigrew & Cramer found that the relationships betweeen the county Black percentage and the timing of desegregation remained positive and even strengthened in four states. The correlations ranged from r=.34 to r=.55. The proportion of White women in the labor force--a variable not included in Pettigrew's earlier study--was taken to represent "traditionalism" with regard to issues such as race. Pettigrew & Cramer offered no explanation for the reversed relationship between the Black percentage and the timing of desegregation in Missouri, which appeared in Pettigrew's earlier study but did not appear here.

COURT DECISIONS REGARDING SCHOOL DESEGREGATION

There are, finally, two studies focusing not on school desegregation *per se*, but on judges' decisions regarding school desegregation. The rationale for these studies is that judges' decisions to some extent reflect community sentiment regarding school desegregation. Most judges preside over courts in their home states, so their early socialization was probably similar to that of other residents of the state (Giles & Walker, 1975). Moreover, even judges who have lifetime tenure are reportedly not immune to community pressure (Giles & Walker, 1975).

Vines (1964) examined all race-relevant cases decided in federal district courts in eleven Southern states between 1954 and 1962. About half of these cases concerned school desegregation.[26] Vines found that judges' decisions less often favored Blacks in Southern judicial districts with a higher Black percentage (r=-.48).

Giles & Walker (1975) have further investigated this relationship by examining the extent of school desegregation in 151 Southern districts under court supervision in 1970. Essentially, their measure of desegregation was

> "the amount of deviation from perfect racial balance which...the supervising judge...allowed" (Giles & Walker, 1975: 924).

This measure differs from the measure used by Vines in that this measure specifically concerns decisions on school desegregation and allows for more variability in those decisions than a single yes/no measure. The zero-order correlation between the district Black percentage and desegregation was negative but weak (r=-.10). On the other hand, district size was strongly related to desegregation (r=-.54). When Giles & Walker regressed desegregation onto both of these variables, district size retained its strong relationship (β=-.42) and the Black percentage emerged as another strong predictor (β=-.26). The inconsistency between the correlation coefficient and the regression coefficient for the Black percentage arose

> "from the fact that Black enrollment and school district size are negatively correlated and, therefore, the size variable suppresses the zero-order correlation between Black enrollment and

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[26] Other cases concerned voting rights, employment discrimination, access to public transportation, access to government facilities, and trial procedures.

desegregation " (Giles & Walker, 1975: 933).

Giles & Walker concluded, as did Giles (1975), that district size is a proxy for the logistical difficulty of desegregation. They described the Black percentage as a proxy for "White fear " of desegregation (Giles & Walker, 1975: 928).

SUMMARY: WHITE RESISTANCE TO SCHOOL DESEGREGATION

The eleven studies reviewed in this section indicate consistently that White resistance to school desegregation has been higher where the Black percentage is higher. Desegregation has been less extensive, desegregation has been delayed longer, and court decisions have been less favorable to desegregation in communities with a higher Black percentage. However, none of these studies explicitly took the Black percentage as a control threat to Whites. Cochran & Uhlman (1973) took the Black percentage as a proxy for the "economic threat" posed by Blacks, and Dye (1968) saw the Black percentage as a proxy for "demands and constraints" on school districts. Several other authors described the Black percentage simply as a proxy for a more general "threat" posed by Blacks (Florin, 1971; Vanfossen, 1968; Giles, 1975; Pettigrew, 1957a) or for Whites' "fear" (Matthews & Prothro, 1964; Giles and Walker, 1975). Perhaps the prospect of school desegregation did in fact represent a threat to Whites in rather general terms--a threat to economic advantages and to status as well as a threat to White control. But economic and status threats seem implicated also in the SES variables that correlated with White resistance, and when such variables were controlled, the relationship between the Black percentage and White resistance remained strong. Thus, it may be that the Black percentage does represent primarily a threat other than an economic or status threat, viz., a control threat. It is clear, in any case, that White resistance to school desegregation was stronger in settings with a higher Black percentage, and these studies at least implicitly support the inference that the Black percentage is in part a threat to White control.

The possibility of nonlinearity could be explored in three of these studies. There was a slight but noticeable acceleration in White resistance at about 15% Black in Giles' (1975) Southern school districts. Beyond that point, White resistance linearly increased in districts up to 55% Black and then leveled off. White resistance also leveled off at a "stop point" of 30% Black in Cochran & Uhlman's (1973) study of desegregation in North Carolina and at a "stop point" of 20% Black in Vanfossen's (1968) study of desegregation in Southern and Border states. Since, in all three studies, White resistance was very high when it finally leveled off, a "ceiling effect" may be producing this form of nonlinearity.

Finally, several other contextual variables influenced the relationship between the Black percentage and White resistance to school desegregation. These variables, and the constructs which they were taken to represent, are listed below:

(1) Aggregate SES: norms favoring White supremecy, persistent bigotry, White support for community welfare (Prothro, 1972; Vanfossen, 1968; Dye, 1968);

(2) City or District Size: Logistical difficulty of school desegregation (Giles, 1975; Giles & Walker, 1975);

(3) Ruralism: willingness to accept token levels of desegregation (Pettigrew, 1957; Pettigrew & Cramer, 1959; Matthews & Prothro, 1964; Prothro, 1972);

(4) Region: degree of federal effort to enforce school desegregation remedies (earliest in the South, then in the Border states, last in the North and West) (Giles, 1975; Dye, 1968);

(5) White women in the labor force: traditionalism on issues such as race (Pettigrew & Cramer, 1959).

SES weakened the relationship between the Black percentage and White resistance, but only slightly. The relationship between the Black percentage and judges' decisions on school desegregation became negative in one study (Giles & Walker, 1975) after district size was controlled. According to Giles & Walker, district size had this effect because the Black percentage and district size were negatively related. A reasonable interpretation of this latter relationship is that district size is an approximate measure of ruralism.[27] That is, the Black percentage is higher in more rural districts. Two other studies looked at another indicator of ruralism, viz., the proportion of county residents in rural areas (Pettigrew, 1957; Pettigrew & Cramer, 1959). They found th[illegible]ontrols for ruralism strengthened the relationship between the Black percentage and White resistance (Pettigrew & Cramer, 1959), probably because that relationship was stronger in rural areas than in urban areas (Pettigrew, 1957). Controls for region (South vs. Border, South vs. North) did not affect the relationship between the Black percentage and White resistance in one study (Dye, 1968) but did uncover fluctuations in this relationship over time in another study (Giles, 1975). Giles attributed these fluctuations to regional differences in the federal effort to enforce school desegregation. Finally, one study found that the relationship between the Black percentage and White resistance remained significant after a control for the percentage of White women in the labor force (a measure of "traditionalism").

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[27] In a nationally representative sample of school districts for an evaluation of compensatory education services (Title I), district size and ruralism were highly correlated ($r=-.71$). The measure of ruralism was a composite of three variables: county population density, percentage of the county population in metropolitan areas, and percentage of the county population in farm areas (Hoepfner et al., 1977).

These and other contextual variables will be discussed in more detail at the end of this chapter. But it should be noted here that none of these studies checked for any effect of these variables on nonlinearity in the relationship between the Black percentage and White resistance to school desegregation.

WHITE FLIGHT FROM DESEGREGATED SCHOOLS AND NEIGHBORHOODS

Previous research has found that the rate of White flight is usually faster from desegregated settings where the Black percentage is higher. But the movement of Whites from cities to suburbs is also affected by non-racial variables, such as stage in the family life-cycle (Leslie & Richardson, 1961; Van Arsdol et al., 1968) and financial ability to move or to pay for private schooling (e.g., Clotfelter, 1978). Thus, White flight may not be as reliable an indicator of White hostility as the other indicators reviewed in this chapter. On the other hand, several studies have in fact posited White flight as an indicator of White hostility, and some of these studies have identified other contextual variables that affect the relationship between the Black percentage and White flight. Accordingly, these studies may provide some useful guidance for this research.

As in previous sections, this section on White flight will cover three points: what is the empirical relationship between the Black percentage and White flight, what is the meaning of that relationship, and what other contextual variables influence that relationship?

WHITE FLIGHT FROM DESEGREGATED SCHOOLS

Several studies of White flight from desegregated schools have appeared in recent years, fueling an extensive and often acrimonious debate among social scientists regarding the relationship between planned school desegregation and White flight. This review focuses not on that relationship specifically, but focuses instead on the relationship between certain contextual variables (including the Black percentage) and White flight.[28]

Stinchcombe et al. (1969) examined enrollment trends in Baltimore's schools from 1955 to 1956, using two methods. First, they ranked schools by the percentage of Blacks enrolled (at 5% intervals) and found that schools with a higher Black percentage gained Blacks no more rapidly, year to year, than did schools with a lower Black percentage. Regardless of the Black percentage, schools gained Blacks at a ratio of about 7% per year. Second, the authors measured White flight as the ratio of the number of Whites who left during each school year to the number of Whites who had been enrolled at the beginning of that year. As the school Black percentage increased, the course of White flight shifted twice. Among schools ranging from 5%-25% Black, White flight increased gradually. Then, among schools ranging from 26% to 60% Black, White flight leveled off. Finally, among schools ranging from 61% to 95% Black, White flight sharply accelerated. In other words, 25% Black was apparently a temporary "stop point" for White flight in this study, but 60% Black emerged as an "acceleration point" in White flight. Despite this evidence of nonlinearity (which the authors did acknowledge), Stinchcombe et al. concluded that the relationship between the Black percentage and White flight is essentially linear, i.e., that

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[28] Full-scale reviews of the research on White flight and accounts of the controversy surrounding that research have appeared elsewhere (e.g., Armor, 1978; Farley et al., 1980; Pettigrew & Green, 1976; Rossell, 1978b, 1978c).

> "there is no 'tipping point'...It is not the case in the Baltimore school system that enough prejudice is aroused by any one particular proportion of Negroes in a school to cause most white students to make a dramatic exit at that point" (Stinchcombe et al., 1969: 134, 135).

For these authors, the Black percentage represented the degree to which a school is "unfavorable to a prejudiced person" (Stinchcombe et al., 1969: 128). The Black percentage "aroused" prejudice which in turn spurred White flight.

Using two measures of White flight (the White percentage decrease and the Black percentage increase), Levine & Meyer (1977) examined White flight in Kansas City, Missouri, from 1965 to 1975. The school Black percentage was trichotomized at 15%-29% Black, 30%-45% Black, and 46%-60% Black. The authors concluded that White flight (either measure, taken at two-year invervals) had been much faster for schools at least 30% Black than for schools under 30% Black. However, an inspection of their data indicates that White flight did not always accelerate in the 30%-45% range. During some two-year intervals, White flight appeared to increase linearly across the three sets of schools. During other intervals, White flight was actually slower for schools between 30%-45% Black than for schools between 15%-30% Black. And even when White flight did accelerate in the 30%-45% range, there is no way to tell whether the point of acceleration was exactly (or closer to) 30% rather than 45% Black. Levine & Meyer also concluded that for schools where the Black percentage had increased by more than ten percentage points between 1956 and 1972, subsequent White flight had usually been at least twice as heavy as it had been for schools where the Black percentage had not increased so rapidly. Their data do support this conclusion.

In a study of 78 Mississippi counties which desegregated in 1969-70, Clotfelter (1976) found that in counties with a higher percentage of Blacks in the school-age population in 1970, the number of Whites enrolled in private schools in 1970 was higher. The relationship was weak in counties under 25% Black, but White flight sharply accelerated in counties over 56% Black. Clotfelter concluded that:

> "school desegregation, through its effect on racial composition of students eligible to attend school with whites, increased private school enrollment through 'white flight.' Where the proportion of non-whites in the school population is not large, however, the magnitude of the effect is probably not very large" (Clotfelter, 1976: 47).

Giles (1978) examined White flight from 60 Southern districts between 1968 and 1974. Each of these districts had desegregated in 1969 or 1970. In 1968, before desegregation began, the percentage loss in the number of Whites enrolled was not heavier for districts with a higher Black percentage (b=-.05). But, once desegregation began and for four years thereafter, schools with a higher Black percentage lost significantly more Whites (b=-.40 for 1968-1970; b=-.35 for 1970-1972). After 1972, White flight was slightly but still significantly heavier for districts with a higher Black percentage (b=-.13 for 1972-1974). When Giles added the squared Black percentage to his regressions for 1968 to 1972, the coefficients for that term (b=-.62 for 1968-1970; b=-.93 for 1970-1972) were much stronger than those for the unsquared Black percentage, indicating that the relationship between the district Black percentage and White flight was not linear.[29] In an examination of the nonlinear trend, Giles found a "start point":

> "Among districts less than approximately 30% Black, differences in the percent black enrollment are not consistently related to differences in the percent white enrollment change...In contrast, among districts about 30% black, the rate of white withdrawal increases expotentially with higher percent black enrollments" (Giles, 1978: 855).

Giles also conducted a school-level analysis of White flight in these 60 districts. With approximately 1,600 schools in his data base, Giles found that schools with a higher Black percentage showed significantly greater declines in the number of Whites enrolled from 1970 to 1972 (b=-.07) and from 1972 to 1974 (b=-.20). When Giles added the squared school Black percentage to his regressions, the squared Black percentage again produced coefficients that were much stronger (b=-.56 for 1970-1972; b=-.74 for 1972-1974) than those produced by the unsquared Black percentage.

> "Among schools less than 20 to 30% black, increasing black enrollment bears little relationship to percent white enrollment change. Among schools more than 20

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[29] The squared Black percentage was not significantly related to White flight in 1968 (b=-.20) or in 1972-1974 (b=.03). Giles argued that most Whites who would not accept desegregation in districts that were at least 30% Black had fled within the first four years of desegregation.

> to 30% black, increases in percent black enrollment yield increasingly larger percentage declines in white enrollment" (Giles, 1978: 861).

Since the district Black percentage was also strongly related to White flight, Giles added the district Black percentage to his school-level analysis. The relationships between the squared school Black percentage and White flight held (b=-.66 for 1970-1972; b=-.74 for 1972-1974), suggesting that schools with a higher Black percentage lost more Whites, regardless of the overall district Black percentage.

Giles has also reported more detailed, individual-level analyses of White flight from seven Florida school districts which implemented county-wide desegregation plans in the 1971-72 school year. In 1973, Giles and his colleagues interviewed White parents whose children were still enrolled in public schools and White parents whose children had transferred to private schools. They analyzed these interviews in a series of published reports.

In the first report, Giles et al. (1974) found that Whites assigned to schools at least 50% Black were not more likely to have transferred to private schools than Whites assigned to schools under 50% Black. However, Whites slated for longer bus rides in 1972-73 than in 1971-72 were more likely to have transferred if they were assigned to schools at least 50% Black than if they were assigned to schools under 50% Black. Apparently, the school Black percentage did spur flight among Whites on whom additional burdens (i.e., longer bus rides) were imposed after the first year of desegregation.

In a second report, Giles et al. (1975) moved their cutpoint from 50% to 30% Black and found that White flight was much more likely among Whites assigned to schools at least 30% Black than among Whites assigned to schools under 30% Black. Beyond 30% Black, White flight did not continue to accelerate. Instead, it leveled off at about three times the rate of flight among Whites assigned to schools under 30% Black. In other words, 30% Black was apparently a "stop point" in the relationship between the Black percentage and White flight. Upon closer examination, White flight appeared to be more likely only among Whites assigned to schools under 30% Black in 1971-72 but then reassigned to schools at least 30% Black in 1972-73.

In a third report, Giles & Gatlin (1978) broke their sample of Whites with children in public schools into two subsamples: Whites who had considered transferring to private schools ("potential avoiders") and Whites who had not considered doing so ("compliers").

> "By comparing compliers to potential avoiders, we can examine the discontents that lead parents to consider removing their children from public schools. By comparing potential avoiders to [actual] avoiders [i.e., Whites who did transfer to private schools in 1972-73], we may discover the conditions that prompt parents to proceed from a state of mind to [action]" (Giles & Gatlin, 1978: 4).

Whites assigned to schools with a higher Black percentage in 1972-73 than in 1971-72 were not more likely to be potential avoiders than to be compliers (β=-.06). On the other hand, those Whites were more likely to be actual avoiders than to be potential avoiders (β=.42).

In summary, Giles' individual-level studies suggest that increases in the school Black percentage did spur White flight from these school districts, especially when Whites were reassigned from schools under 30% Black to schools at least 30% Black. The nonlinearity which appeared in these studies (viz., the leveling off in White flight at

30% Black) is, of course, different from the nonlinearity which appeared in Giles' analyses of White flight from school districts across the entire South. (In those analyses, the relationship between the Black percentage and White flight became positive at a "start point" of 30% Black.) What accounts for this difference? A particular feature of desegregation in the Florida districts may account for the leveling off in White flight: desegregation was implemented in each district on a county-wide basis. As Rossell (1978a) has argued, centrally administered desegregation plans may reassure Whites that racial proportions in the schools will remain relatively stable. That is, the possibility of rapid racial turnover may seem less likely under such plans that it does under plans involving only some schools in a district or under natural (unplanned) desegregation. According to this line of reasoning, Whites apparently saw an important difference between schools that were, say, 10% Black and schools that were 30% Black. But Whites who were willing to send their children to schools that were 30% Black were apparently also willing to send their children to schools that were past 30% Black, perhaps because further increases in the Black percentage seemed unlikely.

Each of these studies indicates that the Black percentage is a salient contextual characteristic affecting White flight from desegregated schools or school districts. But since none of these studies included contextual variables other than the Black percentage, it is not clear that the Black percentage makes any unique contribution to the prediction of White flight. Additional studies have included other contextual variables in their analyses.

Wilson & Taeuber (1978) included school-level SES variables, along with the school Black percentage, in their regression analysis of White flight from Los Angeles schools during 1970. The percentage of school-age Whites who were enrolled in private schools in 1970 was higher for school attendance-zones in which the percentage of white-collar workers was higher (β=.21) and the percentage of home-owners was higher (β=.28). White flight was not related to median family income[30] (β=-.09), to the similarity of Black to White median family income (β=-.06), or to the percentage of Whites with at least some college education (β=.08). With all these SES variables in the equation, White flight was still significantly higher for attendance-zones with a higher Black percentage (β=.25).

Munford (1973) examined White flight from 22 Mississippi school districts during the three years after desegregation in 1969-70. The correlation between the 1968 district Black percentage and the percentage decline in White enrollment over the next three years was positive and quite strong (r=.85). The correlation between the 1970 county Black percentage and White flight over those three years was even stronger (r=.94) and held firm (r=.94) even with controls for "class differences"[31] between Whites and Blacks. On the other hand, the correlation between the district Black percentage at the end of the 1969-70 school year and the extent of White flight between that time and the start of the 1970-71 school year was negative (r=-.47) and, according to Munford, "very weak."

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[30] There appeared to be some interaction between White income and the Black percentage. In zones with a lower White income, the relationship between the Black percentage and White flight was stronger (β=.39). But, as Wilson & Taeuber noted, the stronger relationship may have been due to the higher Black percentage in those zones. The mean Black percentage was 37% in low-income zones but was only 8% in high-income zones.

[31] Munford did not describe his measure of class differences.

Munford's interpretation of these patterns rests on two points. First, the 1968 district Black percentage very closely approximated the 1970 county Black percentage (r=.96 for 17 counties on which data were available). Second, the correlation between the 1968 district Black percentage and White flight over the next three years was strong, but the correlation between the 1970 district Black percentage and White flight over the next three months was weak. Therefore, Munford argued, White flight was spurred not by the district Black percentage but by the county Black percentage.

> "As the return of whites to majority-black schools [at the start of the 1970-71 school year] indicates, ...there was...a factor which could seemingly override the black percentage in the schools. That factor was the percentage of blacks in the local population. Whites seemed to resist desegregation according to the strength of the black threat to their community supremacy" (Munford, 1973: 23).

Coleman et al. (1975) examined White flight from the nation's 67 largest school districts. Their regression analysis indicated that, from 1968 to 1973, White flight was faster from districts with a higher Black percentage and more extensive desegregation over those years.[32] The coefficient for this interaction was stronger in the 21 largest districts (b=1.77) than in the 46 smaller districts (b=.41). The coefficients for the Black percentage itself were quite weak (b=.05 and b=-.03, respectively), suggesting that White flight was not a function of the Black percentage itself but was instead a function of the conditional relationship between the Black percentage and the extent of desegregation (Pettigrew & Green, 1976: 15). Coleman et al. concluded that White flight was "principally a large-city phenomenon." This conclusion rested on the concept of control, but not specifically on the concept of a control threat posed by Blacks. According to Coleman et al.,

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[32] Coleman et al. measured desegregation as "exposure," i.e., as the average number of White students in schools attended by the average Black student , controlling for the size of the Black and White enrollments in the district.

> "[White flight] may be related to an oft-noted concern of both black and white parents: a concern that they have little control over their schools and their children's education. This concern is most pronounced in the largest districts" (Coleman, 1975: 11; emphasis added).

In a reanalysis of the same districts studied by Coleman et al. (excluding three districts in which the enrollment during 1968 to 1973 was greatly affected by annexation), Clotfelter (1979) used a somewhat different measure of the extent of desegregation[33] and added other variables to the analysis. The White enrollment loss from 1968 to 1973 was slightly but significantly higher where the district Black percentage was higher, both in the largest districts (b=-.11) and in the smaller districts (b=-.09). Other contextual variables in his regression equations were the percentage of White families with incomes over $25,000 (b=-1.28 in the largest districts; ns in the smaller districts) and the rate of recent increase in the percentage of non-Whites in the central city (b=.86 in the largest districts; the weight was not significant in the smaller districts). Further analyses uncovered no regional (South vs. Non-South) differences in these relationships. Clotfelter concluded that, in the largest districts, suburbanization trends (recent increase in the non-White percentage) and Whites' ability to bear the costs of private schooling (White income) were, in addition to the district Black percentage, important factors in White flight. Although the extent of desegregation also seemed to spur White flight in the largest districts (b=-.1.17), Clotfelter did not obtain coefficients for the interaction between the Black percentage and the extent of desegregation. However, he did look for nonlinearity in the relationship between the Black percentage and White flight. School desegregation did not spur White flight at all unless the largest districts were at least 7% Black and the smaller districts were at least 6% Black. Thus, 6%-7% Black was apparently a "start point" for White flight in his sample of districts.

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[33] Clotfelter's measure of desegregation was the Black percentage in schools which would have been attended by the average White student if no White flight had occurred.

Farley (1976) examined White flight from 50 Southern and 75 Northern school districts from 1967 to 1972 and found that, in the Southern districts, White flight was heavier when the Black percentage was higher (b=-.50). He found no relationship between these variables in the Northern districts (b=-.05). Farley concluded that White flight may be due to Whites' "fear" of schools with large Black enrollments, but he also cited other possible explanations for the relationship between the Black percentage and White flight, e.g., the less favorable tax base and the higher unemployment rate in cities with a higher percentage of Blacks. Farley did not check for the possibility of an interaction between the Black percentage and the extent of desegregation in these districts.

Pettigrew & Green (1976) have looked at White flight from the nation's 30 largest districts during 1968 to 1973 and found that White flight over those years was heavier from districts with a higher 1968 Black percentage (r=.57). With a control for district size and the extent of desegregation, this relationship held firm (r=.52). Pettigrew & Green acknowledged the notion that the Black percentage represents a control threat to Whites (Pettigrew & Green, 1976: 9). But, like Farley, they argued that the Black percentage may also represent a variety of urban demographic conditions, e.g., the unemployment rate or condition of the housing stock.

For a sample of 109 school districts, Rossell (1978a) determined the year in which desegregation was implemented in each district and then calculated annual rates of White flight before and after that year. For the first year of desegregation, the White enrollment loss was heavier from districts with a higher Black percentage (β=-.87) and from districts in the South (β=-.14). Rossell argued that the Black percentage represents proximity to the city's Black ghetto, which is perceived by Whites to be a "threatening and dangerous" place (Rossell, 1978a: 14).

Checking the interaction which seemed crucial in Coleman et al.'s study, Rossell found that first-year White flight was indeed heavier from districts where desegregation was more extensive (i.e., where more Whites were reassigned) and the district Black percentage was higher (β=-.27). She also found that first-year White flight was heaviest from districts where desegregation was more extensive and the Black percentage was at least 35% (β=-.36). Beyond 35% Black, though, White flight leveled off; it did not continue to accelerate.[34] That is, 35% was apparently a "stop point" in this relationship. Rossell's explanation for this nonlinearity rested on the fact that, in district-wide desegregation plans, the racial composition of schools in the district is centrally controlled and relatively stable. With this assurance of stability, Rossell argued, Whites who are willing to attend a school that is 35% Black are apparently also willing to attend a school that is 40% or 50% Black. They could assume that the Black percentage would remain stable in the near future.

To summarize these 14 studies of White flight from school desegregation, three points can be made. First, in six of these studies, nonlinearity emerged in the relationship between the Black percentage and White flight. A sharp acceleration in White flight occurred at 56% Black in Mississippi counties (Clotfelter, 1976). In addition, White flight was apparently triggered by desegregation at "start points" of 25% in Mississippi counties (Clotfelter, 1976) and 30% Black in Southern school districts (Giles, 1978). In Florida school districts, White flight leveled off at a "stop point" of 30% Black (Giles et al., 1975). Finally, it is arguable (though the authors themselves did not think so) that White flight accelerated at 60% Black in Baltimore's schools (Stinchcombe et al., 1969). None of these studies included contextual variables other than the Black percentage, so it is not clear that the Black percentage itself accounts for these instances of nonlinearity.

Among those studies that did look at other contextual variables, two also looked at the possibility of nonlinearity in the relationship between the Black percentage and White flight. Both of these studies covered nationwide sample of school districts. Clotfelter (1979) found that desegregation did not spur White flight unless the district was at least 6%-7% Black. This finding emerged under controls for White income and the recent increase in the percentage of non-Whites in the central city. Rossell (1978a), controlling for region, found that White flight was particularly heavy from extensively desegregated districts that were at least 35% Black. Past that point, White flight leveled off. Thus, there is some indication that nonlinearity in the relationship between the Black percentage and White flight is in fact due to the Black percentage itself, not to these other contextual variables.

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[34] Apparently, Rossell tested not just the 35% point but also other cutpoints.

Of course, the shape of the nonlinear relationships varied across these six studies. In four of them, White flight started or accelerated at a specific Black percentage. But in two others, White flight leveled off at a specific Black percentage. Differences in the shape of these relationships may be due partly to the source of desegregation. In the two studies that found a leveling off in White flight (Giles et al., 1975; Rossell, 1978a), desegregation was produced by districtwide plans, which (as Rossell argued) may have reassured Whites that the Black percentage in their schools would remain stable. On the other hand, in one of the four studies that found an acceleration or start point in White flight (Stinchcombe et al., 1969; in this study, an acceleration point), desegregation apparently occurred through population shifts. With no assurance of enrollment stability, Whites may have expected that, the higher the school Black percentage, the faster that percentage would increase in the future. Consequently, they withdrew from desegregated schools with a high Black percentage (over 60%) at a noticeably faster rate. In the other three studies (Clotfelter, 1976, 1979; Giles, 1978), desegregation was planned, but the details of the plans (e.g., number of schools involved, racial composition of the schools before and after implementation) were not specified. The emergence of different forms of nonlinearity in these studies will be discussed further at the conclusion of this chapter.

Second, nine of these studies offered no substantive interpretation of the predictive power of the Black percentage. Among the five studies that did offer such an interpretation, the construct of "fear" or "threat" was prominent, though usually in rather general terms. Farley (1976) and Pettigrew & Green (1976) noted that the Black percentage can be taken as a proxy for Whites' fear, but they also noted that the Black percentage may represent a number of urban conditions which push Whites to the suburbs (e.g., an unfavorable tax base, high unemployment). Rossell (1978a) argued that the Black percentage is a proxy for the "threat" represented by the Black ghetto. Stinchcombe et al. (1969) took the Black percentage as a proxy for the school's "unfavorability" to prejudiced Whites. And Munford (1973), in the clearest interpretation of the relationship between the Black percentage and White flight, saw the Black percentage as a proxy for the "Black threat to [White] community supremacy." In short, these studies often viewed the Black percentage as a threat, but did not specify the type of threat--control threat, economic threat, and/or status threat. Only one study clearly saw the Black percentage as a threat to White control (Mumford, 1973).

Third, eight of these studies examined the influence of certain other contextual variables on the relationship between the Black percentage and White flight. SES variables were controlled in three studies (Clotfelter, 1979; Munford, 1973; Wilson & Taeuber, 1978), and the relationship between the Black percentage and White flight held up in each case. SES may represent the degree to which Blacks pose a status threat to Whites in desegregated schools but may (instead or also) represent the financial ability of Whites to move or to pay for private schooling. In Munford's (1973) study, the SES variable was "class differences," which (although Munford did not say how he operationalized this variable) would seem to represent more clearly the status threat posed by Blacks.

District size was included in three of these studies (Coleman et al., 1975; Pettigrew & Green, 1976; Clotfelter, 1979). In Coleman et al.'s study, the Black percentage spurred more extensive White flight in large districts than in small districts. In Pettigrew & Green's and Clotfelter's studies, a control for district size did not greatly reduce the correlation between the Black percentage and White flight. District size may be an indicator of the difficulty of desegregating large school districts or, as Coleman et al. argued, an indicator of the lack of control which parents believe themselves to have in large districts.

The recent increase in the Black percentage was also included in two of these studies (Clotfelter, 1979; Levine & Meyer, 1977). In Levine & Meyer's study, White flight was heavier from schools in which the previous increase in the Black percentage had been more rapid.

And, in Clotfelter's study, the Black percentage spurred White flight even after the coterminous increase in the Black (non-White) percentage was controlled. The possible substantive interpretations of this variable seem to depend on how it was measured in these studies. Clotfelter measured the Black-percentage increase and White flight across the same period of time and took the Black-percentage increase as a proxy for the suburbanization rate in the metropolitan areas served by districts in his sample. He then asked whether school desegregation and the Black percentage (among other variables) could predict the portion of White flight that was not simply a continuation of Whites' movement toward the suburbs. Levine & Meyer did not offer a substantive interpretation for the Black-percentage increase, but they did measure it for a period of time prior to White flight. One possible interpretation of the positive relationship which they found between the Black-percentage increase and White flight is that the former variable represents a particularly salient aspect of the threat to White control. That is, the Black-percentage increase may represent a loss of White control and suggest that further losses are likely to occur in the future.[35]

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[35] Measurement of the Black-percentage increase and White flight across the same time period precludes an inference from Clotfelter's data that the Black-percentage increase causes White flight. Levine & Meyer measured the Black-percentage increase prior to White flight; hence, their study can support a causal interpretation of the relationship between those two variables. Since the control-threat interpretation offered here is a causal interpretation, Clotfelter's study provides no support for the control-threat interpretation, while Levine & Meyer's study does.

WHITE FLIGHT FROM DESEGREGATED NEIGHBORHOODS

Before presenting a final summary of the studies on White flight from school desegregation, this review turns to studies of White flight from neighborhood desegregation. The belief that White flight will usually accelerate at some specific Black percentage or "tipping point" first appeared in studies of neighborhood desegregation (e.g., Abrams, 1955; Cruise, 1955; Deutsch & Collins, 1951; Grodzins, 1957, 1958; Meyerson & Banfield, 1955). This Black percentage was usually located somewhere between 20% and 40%.

These early reports of an acceleration in White flight at a specific Black percentage were mostly testimonial. For example, Meyerson & Banfield (1955) reported that racial quotas between 20% to 33% Black were established in Chicago in the 1950's, to preclude tipping in White flight from public housing projects. But the authors did not cite any evidence for tipping other than the experience of housing administrators in that city. Abrams (1955) cited a tipping point for housing projects at 30% Black--the point at which Whites begin to "feel dominated" by Blacks--but he too offered no evidence for tipping.

Later studies did provide evidence which demonstrated the relationship between the Black percentage and White flight from desegregated neighborhoods. Some of these studies found nonlinearity in this relationship. In most cases of nonlinearity, White flight accelerated at a particular Black percentage. But in one case, there was a "start point" at which the relationship between the Black percentage and White flight became positive. And in another case, there was a "stop point" at which White flight leveled off. Each of these studies appears in the review below.

In their study of neighborhood desegregation in Chicago from 1920 to 1950, Duncan & Duncan (1957) located two points of nonlinearity in White flight. The first is a "start point." Census tracts less than 10% Black in one census often registered a lower Black percentage in a later census, as if Whites had recalimed some of the tracts. But among tracts at least 10% Black, there were no cases in which Whites reclaimed a tract and only a few cases in which the Black percentage even remained stable. At 10% Black, then, further increases in the Black percentage almost always occurred. The second point of nonlinearity which Duncan & Duncan located was an "acceleration point." In census data from 1940 to 1950, all but one of Chicago's 24 tracts which were at least 25% Black in 1940 increased to at least 45% Black in 1950.

Taeuber & Taeuber's (1965) analysis of demographic patterns in ten cities from 1940 to 1960 indicated that the Black-percentage increase (at the census-tract level) was more rapid in cities where the rate of Black population growth outstripped the rate of White population growth (r=.87). Apparently, the authors did not look for nonlinearity in this relationship. However, according to Taeuber & Taeuber, their findings do not suggest a "fear of invasion" among Whites. The relationship which they found was, they argued, an indication of normal racial turnover in cities where the Black demand for housing was high. Taeuber & Taeuber concluded:

> "What happens to a neighborhood seems to depend less upon changes in its racial composition that upon how it fits into the general pattern of [suburbanization]" (Taeuber & Taeuber, 1965: 173).

In his study of population turnover in an unnamed middle-Atlantic city from 1950 to 1960, Pryor (1971) found that census blocks closer to segregated Black neighborhoods experienced more rapid increases in the Black percentage between 1950 and 1960 than did blocks farther away. The Black housing demand was probably higher in blocks closer to Black neighborhoods. Accordingly, this finding could be taken as support for Taeuber & Taeuber's conclusion that racial turnover results from a high Black demand for housing, rather than from Whites' fear of an increasing Black percentage. But Pryor remarked that White flight could have begun in the course of normal population turnover and, at some particular Black percentage, accelerated because most Whites were not willing to live in a neighborhood past that percentage. His data support that notion, though weakly, with a point of acceleration in White flight at about 40% Black.

Rapkin & Grigsby (1960) investigated neighborhood desegregation in Philadelphia from 1950 to 1955. The proportion of Whites among those who bought houses in desegregated census blocks decreased as the Black percentage increased. The decrease was very sharp (from near 1.00 to 0.05) from 0% Black to 15% Black, and then it leveled off at about 0.05. Since this White "move-in rate" was so low when it leveled off, this nonlinearity may be due to asymptoting (i.e., to a "basement effect" in the measure; see pp. 113,119) rather than to any real leveling off in White hostility toward Blacks. Rapkin & Grigsby did not believe that so many Whites could have objected to the presence of so few Blacks, unless Whites expected the Black percentage to increase markedly in the future. According to these authors, Whites believed that as the Black percentage increases,

> "existing institutions, formal and informal, are in danger of losing their support and face the real possibility of serious decline or disappearance" (Rapkin & Grigsby, 1960: 56).[36]

Wolf (1963) found an essentially linear Black-percentage increase in a desegregated Detroit neighborhood over a six-year period. The neighborhood was 0% Black in 1955, 22% Black in 1957, 50% Black in 1959, and 74% Black in 1961. She concluded that no "tipping" in White flight had occurred. In fact, she argued that an acceleration in White flight was unlikely to occur in any desegregated neighborhood. Like Rapkin & Grigsby, Wolf believed that Whites pay more attention to the prospect of a future Black-percentage increase than to the current Black percentage in their neighborhoods.

> "[T]he basic difficulty [with] the tipping-point concept ...is that individual decisions to leave or enter tend to be based on one's estimate of what the situation will be in the future, rather than upon the actual proportion of Negro households in the area at any given moment" (Wolf, 1963: 220; emphasis hers).

In particular, Whites who are potential home buyers, rather than renters, "appear to be oriented rather far into the future" (Wolf, 1963: 221).

In a 1976 Detroit survey, Farley et al. (1978) showed 734 White respondents a set of five diagrams of a neighborhood with fourteen houses. Successively, the diagrams depicted a neighborhood with no Black residents (0%), with one Black resident (7%), with three Black residents (21%), with five Black residents (35%), and with eight Black residents (56%). As the interviewers passed from one diagram to the next, they asked respondents whether they would feel uncomfortable in the neighborhood, whether they would try to move out, and whether they would be willing to move in. As the Black percentage increased, the White respondents felt more uncomfortable, were more likely to move out, and were less likely to move in. The increases were rapid but steady (i.e., roughly linear) for each item. At 7% Black, 7% of the respondents would have moved out. And at 56% Black, 64% would have moved out. Farley et al. believed that an acceleration in White flight would occur at that Black percentage when the proportion of Whites who would move out exceeded the proportion of Whites who would move in. Using the data from their Detroit survey, Farley et al. located this point at about 35% Black.[37]

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[36] Rapkin & Grigsby did not explicitly link Whites' fear of declining support for neighborhood institutions with the concept of control. But this connection seems implicit in Rapkin & Grigsby's discussion (Rapkin & Grigsby, 1960: 55-56).

Rose (1970) developed a simulation model for racial turnover in Milwaukee from 1950 to 1960. Its components were: housing demand (set by Black and White birth and marriage rates and the rate of Black migration to the city), housing availability (set by assumed rates of White flight at successive Black percentages), and housing consumption by Blacks (set by Blacks' "propensity" to acquire housing in successive cost ranges). In his housing availability component, Rose assumed that White flight accelerated as the Black percentage increased. He argued that although there is some Black percentage beyond which Whites will not accept residential desegregation, "there is no general agreement on what whites perceive to be an acceptable racial mix" (Rose, 1970: 6). So the relationship in his model was simply curvilinear. White flight accelerated smoothly but did not start its acceleration at any particular Black percentage. Testing the model against actual patterns of turnover at the census-block level, Rose got fairly accurate predictions for some blocks. But his predictions for most blocks were not accurate.

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[37] In their narrative, Farley et al. placed the acceleration point at 30% Black. Their data indicate that the point is closer to 35% Black.

Rose believed that one reason for this poor showing was that, in his housing availability component, White flight accelerated too slowly at the lower Black percentages and too swiftly at the higher Black percentages. After correcting for this flaw and a few others, Rose (1972) tested a revised model against actual census-block patterns of turnover in five U.S. cities from 1960 to 1970. His predictions were, he reported, accurate in three of the five cities. In summary, rather than looking for an acceleration in White flight, Rose assumed an acceleration in White flight in a simulation model of racial turnover. The predictive power of the model was uneven. But Rose apparently believed that his assumption of an acceleration in White flight as the Black percentage increased was a source of accuracy in the model, not a source of error.

Rose (1970) also found more direct evidence of nonlinearity in the relationship between the Black percentage and the proportion of Whites among those who bought homes in desegregated Milwaukee census tracts between 1950 and 1960. There was a point of acceleration, at about 30% Black, in that relationship.

In interpreting these findings, Rose saw racial turnover as a "process...in which members of competing groups struggle for territory" (Rose, 1970: 4). White flight was, he believed, a response to the "perceived threat" which Blacks pose to White territory.

Frey (1979) examined White flight in 39 U.S. metropolitan areas between 1965 to 1970. Defining White flight as the movement of Whites from city to suburbs within the same metropolitan area, Frey found that White flight was significantly higher when the Black percentage was higher (β=.38). Other variables in his regression equation included the difference between city and suburban per capita tax revenues (β=.29) and the difference between city and suburban per capita educational expenditures (β=.28). As noted in the section on White flight from desegregated schools, Farley (1975) and Pettigrew & Green (1976) suggested that the Black percentage may be a proxy for urban conditions of this sort, e.g., an unfavorable tax base or poor housing stock. But the fact that the Black percentage predicted White flight from desegregated neighborhoods with these two other variables in the equation suggests that the Black percentage is not just a proxy for these conditions. On the other hand, Frey did not explicitly posit the Black percentage as a control threat to Whites. He simply used the Black percentage as a measure of White "exposure" to Blacks and concluded that White flight was in part a function of "racial motivations."

In summary, there seem to be relatively few empirical studies of the relationship between the Black percentage and White flight from desegregated neighborhoods. The eight studies which were reviewed here indicate that the Black percentage has been positively and (in five studies) nonlinearly related to White flight. A "start point" in this relationship appeared at 10% Black in Chicago (Duncan & Duncan, 1957). Four studies located points of acceleration in White flight between 25% Black and 40% Black (Duncan & Duncan, 1957; Farley, 1978; Pryor, 1971; Rose, 1970). And finally, one study found a "stop point" at 15% Black in the declining rate at which Whites moved into desegregation neighborhoods in Philadelphia (Rapkin & Grigsby, 1960). The decline asymptoted at that point.

Two of these studies (Rapkin & Grigsby, 1960; Rose, 1970) saw the Black percentage as a proxy for the threat to White control. Rapkin & Grigsby reported that Whites associate a higher Black percentage with declining support for "formal and informal" neighborhood institutions. Rose believed that the Black percentage represents a threat to Whites' control over their neighborhood "territory."

Finally, only Frey (1979) controlled for other contextual variables in the relationship between the Black percentage and White flight. These variables (city/suburb differences in tax revenues and in educational expenditures) represent conditions associated with the decline of central cities. None of these studies controlled for additional variables, e.g., region or ruralism, that could account for the relationship between the Black percentage and White flight. However, two studies (Wolf, 1963; Rapkin & Grigsby, 1960) suggested that it might be Whites' expectations of a future increase in the Black percentage, rather than the current Black percentage, which spurs White flight. Neither study offered any evidence regarding this possibility.

SUMMARY: WHITE FLIGHT FROM DESEGREGATED SCHOOLS AND NEIGHBORHOODS

These 22 studies of White flight indicate that the Black percentage is positively related to White flight from desegregated settings. Most studies either offered no substantive interpretation for the Black percentage or treated the Black percentage in very general terms, e.g., as a proxy for "exposure" to Blacks or for Whites' "fear" of Blacks. Three studies were more specific, taking the Black percentage as a threat to Whites' "territory" (Rose, 1970), to support for White neighborhood institutions (Rapkin & Grigsby, 1960), or to Whites' "community supremacy" (Munford, 1973).

Eleven of these studies found evidence for nonlinearity in the relationship between the Black percentage and White flight. An acceleration in White flight occurred in six studies, at points between 25% and 60% Black (Clotfelter, 1976; Stinchcombe et al., 1969; Duncan & Duncan, 1957; Farley et al., 1978; Rose, 1970; Pryor, 1971). "Start points" appeared in four studies and varied from 6%-7% Black to 30% Black (Clotfelter, 1976, 1979; Giles, 1978; Duncan & Duncan, 1957). And finally, White flight leveled off at "stop points" between 15% and 35% Black in three studies (Giles et al., 1975; Rossell, 1978a; Rapkin & Grigsby, 1960). As noted above, the leveling off in White flight may be due to asymptoting in White flight from desegregated neighborhoods (Rapkin & Grigsby, 1960) or to the implementation of district-wide school desegregation plans (Giles et al., 1975; Rossell, 1978a). Possible reasons for the wide variability in acceleration points and start points for White flight are discussed at the close of this chapter.

Finally, a number of other contextual variables affected the relationship between the Black percentage and White flight. Most of these variables emerged in eight studies of White flight from desegregated schools, but two emerged in Frey's study of White flight from desegregated neighborhoods. These contextual variables, and the constructs which they were said to represent, are:

(1) SES: the status threat posed by Blacks, the financial ability of Whites to move or to pay for private schooling (Clotfelter, 1979; Munford, 1973; Wilson & Taeuber, 1978);

(2) District size: the logistical difficulty of desegregating large urban districts, the degree to which parents believe that they control their children's education (Coleman et al., 1975; Pettigrew & Green, 1975; Clotfelter, 1979);

(3) Region: the strength of norms regarding racial prejudice and discrimination, regional variation in the extent of court-ordered desegregation (Farley, 1975; Rossell, 1978a);

(4) Recent increase in the Black percentage: suburbanization (when this variable and White flight were measured for the same time span), the control threat posed by Blacks (when this variable was measured for some time prior to White flight) (Clotfelter, 1979; Levine & Meyer, 1977);

(5) City/Suburb Difference in tax revenues: central-city decline (Frey, 1979);

(6) City/Suburb Difference in educational expenditures: central-city decline (Frey, 1979).

The relationship between the Black percentage and White flight was significant under controls for SES, for the recent increase in the Black percentage, for differences in tax revenues, and for differences in educational expenditures. District size and region interacted with the Black percentage. That is, the relationship between the Black percentage and White flight was stronger in larger districts than in smaller districts and stronger in the South than outside the South.

Notably, two of these studies found nonlinearity in the relationship between the Black percentage and White flight, after controlling for other contextual variables, viz., White income and the recent increase in the Black percentage (Clotfelter, 1979) and region

(Rossell, 1978a). That is, there was some indication that nonlinearity in White flight was due specifically to the Black percentage rather than to these other variables. In no other case of nonlinearity were other contextual variables considered.

In this research on White students' hostility toward Blacks in desegregated schools, these contextual variables will not necessarily have similar effects on the relationship between the Black percentage and White hostility. But these studies of White flight do suggest which contextual variables ought to be included in this research. This point is discussed further in the concluding section of this chapter.

WHITE STUDENTS' RACIAL HOSTILITY IN DESEGREGATED SCHOOLS

The fourth major indicator of White hostility in previous research concerns the racial attitudes and sociometric choices of White students in desegregated schools. The studies in this section are divided into two sets. One set concerns the relationship between the Black percentage and White students' racial attitudes. The other set concerns the relationship between the Black percentage and White students' sociometric choices.

WHITE STUDENTS' RACIAL ATTITUDES

Bullock (1976) surveyed racial attitudes among 3,300 White students in 28 Georgia high schools. Using an eight-item scale to measure Whites' willingness to associate with Blacks in various school locations (e.g., the cafeteria and the classroom), Bullock found that Whites in schools over 60% Black were slightly more hostile toward Blacks than Whites in schools between 8% and 50% Black. But racial hostility was highest among Whites in schools between 51% and 60% Black. Figure 3.1 is a representation of Bullock's findings. The relationship between the Black percentage and White hostility follows an inverted-U form, peaking at 51%-60% Black. Bullock concluded that Whites in schools that were 51% to 60% Black were singularly hostile toward Blacks because a small Black majority could control the outcomes of "elections and other decisions" (Bullock, 1976: 301).

Davis (1973) has reported attitudes toward desegregation among 951 White fifth-grade students and 537 White tenth-grade students in school districts across the country. His primary purpose was to assess the effect of busing on White students' attitudes, but he included the Black percentage to control for Whites' "concerns about the effects of various racial proportions" (Davis, 1973: 91). The school Black percentage was negatively related to Whites' attitudes toward desegregation among both fifth-graders (Q=-.08) and tenth-graders (Q=-.53). Only the relationship for tenth-graders was significant.

Dentler & Elkins (1967) assessed racial attitudes among 2,230 students in eleven elementary schools in a Northern city. They used three different measures of racial attitudes: a social distance scale, a "racial opinions" scale (concerning racial stereotypes), and a projective test in which imaginary Black and White students were rated on various evaluative criteria. Relationships between the school Black percentage and students' scores on the first two measures were positive and significant, indicating that attitudes were less favorable in schools with a higher Black percentage. (Dentler & Elkins did not report the relationships between the school Black percentage and White students' racial attitudes).

In Thomas' (1979) study of perceived racial tension in 48 Southern high schools, Whites reported higher levels of tension in schools where the Black percentage was higher (β=.15), but the relationship was not significant. Further analyses indicated that Whites reported much higher racial tension in schools where the Black percentage was higher and the SES of the school was low.[38] Thomas noted that since his measure of racial tension was reported by students, the data provide no indication of whether tension was actually higher in majority-Black, low-SES schools or was only perceived to be higher in such schools.

> "Compared to other whites, do lower-SES whites feel more subjective threat to their status by black students ...even though they experience no more behavioral racial conflicts...than other whites? Or, alternatively, are lower-SES whites more likely than other whites to be the source of higher levels of...interracial conflict?" (Thomas, 1979: 13; emphasis his).

Finally, a study by Giles (1977) provides some additional evidence on the relationship between the Black percentage and Whites' racial attitudes. This study concerns racial attitudes among a nationwide sample of approximately 1,800 White adults, rather than White students. But it does demonstrate the influence of region on the relationship between the Black percentage and Whites' racial attitudes. Giles reported that in counties with a higher Black percentage, Whites' attitudes toward Blacks were slightly less favorable (β=.15). When he broke the sample into Southern Whites and non-Southern Whites, the relationship strengthened in the South (β=.25) but disappeared outside the South (β=-.03). Giles concluded that, because of "anti-black norms embedded in a distinctly southern subculture," Whites in the South were "more sensitive to the black concentration in their environment" (Giles, 1977: 415).

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[38] In this analysis, the school Black percentage was a binary variable; schools were either majority-White or majority-Black. Thomas reported no measures of association or significance levels for the interaction between the Black percentage and school SES.

WHITE STUDENTS' SOCIOMETRIC CHOICES

When Davis (1973) assessed racial attitudes among fifth- and tenth-grade Whites across the country, he also assessed their sociometric choices in school. In schools with a higher Black percentage, fifth-grade Whites included more Blacks among their friends (Q=.38). The cross-race choices of tenth-grade Whites did not vary with the school Black percentage (Q=-.04). Of course, in schools with a higher Black percentage, there are more Blacks (and fewer Whites) to choose from. So, even if Whites in such schools chose fewer Black friends than would be expected if they made their choices without regard to race, the relationship between the school Black percentage and Whites' cross-race sociometric choices could still be positive. Because of this fact, the lack of a relationship between the school Black percentage and cross-race choices among tenth-grade Whites actually suggests that tenth-grade Whites were less likely to choose Blacks as friends in schools with a higher Black percentage.

Other studies have tried to take into account the greater statistical probability of cross-race choices by Whites in schools with a higher

Black percentage. During his observations of "free periods" at a desegregated elementary school, Shaw (1973) found that Whites interacted with Blacks less frequently when the percentage of Blacks present during those periods was higher. The relationship held when he controlled for the number of Blacks present.[39] Shaw concluded that

> "the presence of a high proportion of [Blacks] makes them more visible...and hence arouses whatever negative feelings [Whites] have toward [Blacks]" (Shaw, 1973: 155).

Shaw's study is particularly noteworthy since his observations occurred in the same school over time. Thus, the results suggest that the Black percentage "exerts its effect even when variations in [the Black percentage] occur within the same group."[40]

Gottleib & TenHouten (1965) examined sociometric choices among Whites in three high schools in a Midwestern city: a predominantly White school, a racially balanced school, and a predominantly Black school. In the latter two schools, Whites made fewer cross-race choices than would be expected if Whites had chosen their friends without regard to race. In fact, Whites in the predominantly Black school chose their friends almost exclusively from Whites outside the school.

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[39] This procedure for taking "expected" choices into account seems unsatisfactory, since the substantive distinction between the percentage of Blacks and the number of Blacks in these periods is unclear. That is, both of these variables would seem to represent the expected frequency of contact. In fact, among the 123 schools used in this research (cf. Chapter 4), the number of Blacks and the percentage of Blacks in the enrollment were highly correlated (r=.78). Thus, it is unclear how a control for either variable could remove the "expected" proportion of cross-race choices without rendering the resultant partial correlation meaningless. An alternative procedure is to examine the difference in correlations between the Black percentage and Whites' cross-race choices in schools of varying size; see Fairchild (1977), reviewed below.

[40] An examination of Whites' sociometric choides on a written questionnaire and school absentee records for the days of his observations convinced Shaw that the relationship between the Black percentage and White interaction with Blacks was not artifactual. The Whites who were present during periods when the Black percentage was higher were not, on the questionnaire, less friendly toward Blacks than Whites who were present during periods when the Black percentage was lower.

Fairchild (1977) examined the sociometric choices of high-school students in 109 schools across the country. The Black percentage in these schools ranged from 1% to 50%. Fairchild did not report the relationship between the Black percentage and Whites' sociometric choices. But since the Black percentage did not add significantly to the variance in Whites' sociometric choices that was accounted for by school size (Fairchild, 1977: 19), that relationship was apparently rather weak. Fairchild did, however, report an interaction between the Black percentage and school size. In small schools with a higher Black percentage, Whites made more cross-race sociometric choices. But in large schools, the relationship between the Black percentage and Whites' cross-race choices was quite weak. This pattern held up when Fairchild examined Southern vs. non-Southern schools and rural vs. urban schools.

Fairchild did not introduce any statistical control for the fact that there are simply more Blacks to choose from in schools with a higher Black percentage. But he inferred from the lack of a relationship between the Black percentage and Whites' choices in large schools that racial "polarization" is more likely in large schools with a higher Black percentage (Fairchild, 1977: 14). The greater number of students in each racial group allowed the formation of racially separate friendship networks.

The National Institute of Education (NIE) (1978), in its survey of students in 642 junior and senior high schools, included items concerning the incidence of assault and robbery in those schools. The study does not specifically concern students' sociometric choices. But NIE, in interpreting its findings on school violence, raised the issue of "turf" control. White students were more likely to be assaulted or robbed in schools over 70% non-White, and non-White students were more likely to be assaulted or robbed in schools over 70% White. NIE concluded that:

> "The risk of being victimized tends to increase if you are not part of the dominant racial/ethnic group in the school's population. The notion of 'turf dominance' [thus] receives support from the data.... The dominant group in a school may be able to pick on members of smaller groups with relative impugnity" (NIE, 1978: 105, 109).

SUMMARY: WHITE STUDENTS' RACIAL HOSTILITY IN DESEGREGATED SCHOOLS

First, four of these nine studies offered a substantive interpretation of the relationship between the Black percentage and White students' hostility toward Blacks. Shaw (1973) argued that a higher Black percentage made Blacks more "visible" and thereby generated more White hostility. Davis (1973) included the Black percentage in his research on busing as a proxy for Whites' "concerns about the effects of various racial proportions." Probably, Davis was referring broadly to concerns regarding not just the perceived threat to White control in desegregated schools but also the perceived threat to Whites' status and academic development. Another two studies were more specific. Bullock (1976) handled the Black percentage as a proxy for the threat to White control over "elections and other decisions," and NIE (1978) believed that school racial proportions represent "turf dominance." In short, these nine studies indicate that the Black percentage is a salient contextual characteristic of desegregated schools. Bullock (1976) and NIE (1978) argued that the Black percentage represents a specific explanatory construct, viz., the threat to White control in desegregated schools.

Second, the possibility of nonlinearity in the relationship between the Black percentage and White students' racial hostility was explored in only one of these studies. Bullock's (1976) study of Whites' racial attitudes found those attitudes to be quite unfavorable in schools between 51% to 60% Black. Attitudes did not become even more unfavorable in schools with a stronger Black majority. Instead, they became more favorable. Other studies did not look for nonlinearity in the relationship between the Black percentage and White students' racial hostility or measured the Black percentage in crude terms (e.g., majority-White vs. majority-Black schools). Thus, previous research really does not provide any solid grounds for even a tentative conclusion regarding the occurrence of nonlinearity in White students' racial hostility.

Finally, three of these studies offer evidence on other contextual variables that affect the relationship between the Black percentage and White students' racial hostility. These contextual variables, and the constructs which they were taken to represent, are:

(1) School SES: the status threat posed by Blacks, the degree of actual racial tension in the school (Thomas, 1979);

(2) School size: the likelihood that friendship networks will be racially separate (Fairchild, 1977);

(3) Region: the strength of racial norms regarding racial prejudice and discrimination (Giles, 1977; Fairchild, 1977);

(4) Ruralism: no substantive interpretation offered (Fairchild, 1977).

School SES interacted with the Black percentage; Whites perceived a higher level of racial tension in majority-Black, low-SES schools. School size also interacted with the Black percentage; Whites chose Blacks as friends less often in large schools with a higher Black percentage than in small schools with a higher Black percentage. An interaction also emerged between the Black percentage and region in one study (Giles, 1977); White adults were less favorable toward Blacks in Southern counties with a higher Black percentage but not in non-Southern counties with a higher Black percentage. In another study (Fairchild, 1977), no such interaction emerged; the interaction between the Black percentage and school size held in both regions of the country. Finally, the interaction between the Black percentage and school size was reportedly not affected by ruralism; it was significant in urban as well as rural schools.

None of these studies looked for the possible effects of these variables on the occurrence of nonlinearity in the relationship between the Black percentage and White students' hostility toward Blacks.

SUMMARY: THE BLACK PERCENTAGE AND WHITE HOSTILITY TOWARD BLACKS

This final section provides a brief summary of the three major issues running through this review: the substantive meaning of the Black percentage, the occurrence of nonlinearity in the relationship between the Black percentage and White hostility, and the influence of other contextual variables on that relationship. This section also specifies how this research on White students' hostility toward Blacks can be used in addressing each of these issues.

THE MEANING OF THE BLACK PERCENTAGE

Taken together, these studies (72 in all) have consistently demonstrated a strong relationship between the Black percentage and White hostility. The inference that the Black percentage represents a threat to White control seems strongest in the setting of Southern electoral politics, where racial proportions in the voting-age population bear an obvious relevance to White political control. But the Black percentage is also a strong predictor of White resistance to school desegregation, White flight, and White students' racial hostility in desegregated schools, leading some researchers to conclude that White hostility is, in these settings as well, a response to the threat which Blacks pose to White control (e.g., Whites' ability to regulate access to certain facilities and activities or to maintain the pre-eminence of their own cultural values).

In a few of these studies, though, the Black percentage was not taken as a proxy for the control threat. It was instead taken as a proxy for the economic or status threat posed by Blacks (e.g., Heer, 1959; Cochran & Uhlman, 1973) or for the strength of traditional racial norms (Cnudde, 1971). The Black percentage is, in fact, closely correlated with contextual variables (e.g., SES and region) that represent such constructs, so there is good reason for taking the Black percentage as a measure of the economic or status threat posed by Blacks or for the strength of racial norms. But, in studies that controlled for such variables as SES or region, the Black percentage and White hostility were still rather strongly related. Hence, it seems arguable that some part of the variation in the Black percentage represents the degree to which Blacks pose a control threat to Whites and that White hostility is in part a response to that threat.

On the other hand, none of these studies assessed the simultaneous influence of several relevant contextual variables on the relationship between the Black percentage and White hostility. That is, no study controlled simultaneously for variables such as SES and region and ruralism, to see whether that part of the variation in the Black percentage which most clearly represents the control threat has any unique relationship to White hostility. Consequently, while the argument that the Black percentage represents a control threat seems defensible, it does not seem conclusive. In the present research on White students' racial hostility in desegregated schools, a number of contextual variables representing constructs other than the control threat can be partialed out of the relationship between the Black percentage and White hostility. Further discussion of the contextual variables available for this research appears below.

THE OCCURRENCE OF NONLINEARITY

As noted above, some conceptualizations of the control threat predict nonlinearity in the relationship between the Black percentage and White hostility. This review of the empirical work on that relationship has indicated the occurrence of nonlinearity in three forms: a J-curve relationship with an "acceleration point" or "start point," an inverted-U form in which White hostility peaks at about 51-60% Black and then declines, and a positive relationship which becomes flat past some particular "stop point." Tables 3.1 to 3.3 list, for each of these forms, the studies in which they emerged, the measures of White hostility and levels of analysis that were employed, and the points at which nonlinearity occurred.

The J-curve is the most frequently occurring form of nonlinearity, having appeared in 16 of these studies (Table 3.1). Twelve studies found "acceleration points" in the relationship between the Black percentage and White hostility, usually between 25% and 40% Black, in electoral politics and in White flight. However, acceleration once occurred at a point as low as 15% Black, in White resistance to school desegregation, and twice occurred at points as high as 56% to 60% Black, in White flight. Four studies of White flight turned up a close variant of the J-curve form, in which the relationship between the Black percentage and White hostility became positive at various "start points" (Table 3.1). These points were as low as 6%-7% Black and as high as 30% Black.

One study (Bullock, 1976) found another form of nonlinearity in the relationship between the Black percentage and White hostility, viz., the inverted-U form (Table 3.2). In this study, White students' hostility toward Blacks was highest in schools between 51%-60% Black and then declined.

Finally, in seven cases, a positive relationship between the Black percentage and White hostility existed within a fairly low Black-percentage range and then became negligible beyond a certain "stop point" (Table 3.3). This point was usually 30%-35% Black, in studies of electoral politics, White resistance to school desegregation, and White flight. But a "stop point" once appeared at 15% Black in White flight and once appeared at 55% Black in White resistance to school desegregation.

The occurrence of this form of nonlinearity seems artifactual rather than substantive. In four of these studies (Rapkin & Grigsby, 1960; Giles, 1975; Cochran & Uhlman, 1973; Vanfossen, 1968), the measure of White hostility asymptoted at these stop points, precluding any further increase. In another two cases (Giles et al., 1975; Rossell, 1978a), the leveling off in White flight seemed due to a particular feature of district-wide desegregation plans, viz., a guarantee of stability in school racial proportions. This guarantee may have dampened White flight precisely because it reassured Whites that the control threat posed by Blacks would not increase in the near future. And in the remaining case (Black, 1973), the leveling off may have been due to the unusual measure of White hostility that was employed in that study (viz., the proportion of "core segregationist" counties in successive Black-percentage ranges) or to the confounding of White and Black voting patterns. Thus, studies that found a "stop point" in White hostility may not be indicative of how White hostility "behaves" under more general conditions.

There are several other possible reasons for the emergence of nonlinearity in different forms and at different points--reasons that apply not just to the "stop point" form but also to the J-curve and inverted-U forms. As Blalock (1967: 175) has noted, the relationship between the Black percentage and White hostility may vary across levels of analysis. For example, nonlinearity may be more noticeable at the district level than at the school level, or the point at which nonlinearity emerges could be higher at the school level than at the individual level. Langbein & Lichtman (1978) have cited three possible reasons for finding different forms of a relationship across levels of analysis: the relationship between the variables may be substantively different acrcss levels of analysis, other variables may confound the relationship in different ways across levels of analysis, or the variance in either variable may be different across levels of analysis. Another possible reason for these different forms of nonlinearity is, of course, that the Black percentage represents a control threat more clearly in some settings than in others.

In any case, it is clear that the relationship between the Black percentage and White hostility is not necessarily linear.[41] It may take the inverted-U form, as in Bullock's (1976) study of racial attitudes among White high-school students in Georgia, with the point of greatest hostility in schools near 51%-60% Black. But Bullock's study was the only study of White students' racial hostility that looked for a nonlinear relationship, and the relationship that he found may not be typical of White students elsewhere. Another strong possibility is that White hostility may accelerate at a particular Black percentage. The J-curve form is the form that most often occurred in these studies, and Blalock (1967) has offered a well-articulated theoretical justification for expecting that form of nonlinearity to emerge in settings where control is an issue. Of course, if the acceleration is quite slow at low Black percentages, the relationship may appear to have a "start point" rather than an "acceleration point," so this variant of the J-curve form must also be considered a possibility. Finally, White hostility could level off at some particular "stop point," but in previous studies this form of nonlinearity seemed to be the product of special circumstances that may not arise in this research.

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[41] A full explication of these possibilities is beyond the scope of this research.

In Chapter 5, the data will be examined for any of these forms of nonlinearity in the unique relationship between the Black percentage and White students' racial hostility. Since some conceptualizations of the control threat have posited nonlinearity in the J-curve or inverted-U form, the appearance of either form here would provide further support for the inference that the Black percentage represents a control threat to Whites in desegregated schools.

THE INFLUENCE OF OTHER CONTEXTUAL VARIABLES

Many of these studies included contextual variables which represent constructs other than the control threat to Whites: aggregate SES, school size, district/city size, region, sub-region of the South, region of the state (Louisiana), the recent increase in the Black percentage, suburb/city differences in tax revenues, suburb/city differences in educational expenditures, and the "friends and neighbors" vote. Each of these variables is discussed below.

SES seems to represent the degree to which Blacks pose a status threat or an economic threat to Whites. (With respect to White flight, SES may also represent the financial ability of Whites to move or to pay for private schooling.) When SES was controlled (e.g., Matthews & Prothro, 1963; Grunbaum, 1964; Vanfossen, 1968; Munford, 1973), the relationship between the Black percentage and each indicator of White hostility sometimes weakened slightly but always remained significant. SES also interacted with the Black percentage in one study of White students' racial hostility (Thomas, 1979); hostility was highest in majority-Black, low-SES schools.

School size, a variable which emerged in one study of White hostility in desegregated schools (Fairchild, 1977), was taken to represent the likelihood that friendship networks will be racially separate. In larger schools, it is apparently easier for students to confine their social interactions to same-race students. Thus, an interaction emerged between the Black percentage and school size; Whites more often chose other Whites as their friends in large schools with a higher Black percentage, but not in small schools with a higher Black percentage.

District or city size emerged in two studies of White flight (Coleman et al., 1975b; Clotfelter, 1979) and one study of White resistance to school desegregation (Giles & Walker, 1975), as a proxy for the logistical difficulty of implementing desegregation plans or for the degree to which parents believe that they can control their children's education. In one study of White flight (Coleman et al., 1975b), the Black percentage and district size interacted; the relationship between the Black percentage and White flight was stronger in large districts than in small districts. In the other study of White flight (Clotfelter, 1979), the relationship between the Black percentage and White flight was as strong in small districts as it was in large districts. And in the study of White resistance to school desegregation (Giles & Walker, 1975), a control for district size strengthened the relationship between the Black percentage and White resistance.

As noted above (p. 127), district or city size can also be taken as a proxy for ruralism. In rural settings, traditional norms regarding race are typically less favorable to Blacks than they are in urban settings. Five studies of White hostility in electoral politics (e.g., Wright, 1976; Black, 1973) and four studies of White resistance to school desegregation (e.g., Pettigrew & Cramer, 1959) have included measures of ruralism other than district or city size (e.g., percentage of county residents living on farms). In these studies, the Black percentage and ruralism usually interacted. The relationship between the Black percentage and White hostility was stronger in rural areas than in urban areas. One study of White students' hostility toward Blacks (Fairchild, 1977) included a measure of ruralism but found that this variable did not affect the relationship between the Black percentage and White students' sociometric choices. It appears, then, that district or city size can represent at least three different constructs that are relevant to White hostility toward Blacks; the logistical difficulty of school desegregation (more difficult in larger districts), the perceived level of parental control over education in the district (lower control in larger districts), and the strength of traditional racial norms (stronger in smaller districts). The meaning of district or city size probably depends on the particular measure of White hostility to which it is applied, e.g., White students' or White adults' hostility, White flight or White racial attitudes? The matter of interpreting the effect of district or city size on the relationship between the Black percentage and White hostility will be taken up again in the discussion of variables that are available for this research (pp. 177-178, especially footnote 45).

Region also appears to represent the strength of traditional racial norms--stronger in the South than outside the South.[42] Accordingly, in two studies of White flight (Farley, 1976; Rossell, 1978a) and one study of Whites' racial attitudes (Giles, 1977), the relationship between the Black percentage and White hostility was stronger in the South than outside the South. The evidence is not all that clear-cut, since in three studies of White resistance to school desegregation (e.g., Dye, 1968) and one study of White students' racial hostility (Fairchild, 1977), the relationship between the Black percentage and White hostility was not affected by region.

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42. Region can also be taken as a proxy for variation in federal efforts to enforce school desegregation, as it was in some studies of White flight and White resistance to school desegregation. This variation was probably due in part to the fact that norms favoring racial prejudice and discrimination were stronger in the South. Thus, the federal government focused its early and most intensive efforts on this region.

Sub-region of the South was also taken to represent the strength of traditional racial norms. Such norms have been less favorable to Blacks in the deep South than in the upper South. But there is apparently more variation in racial norms in the upper South than in the deep South, because Whites througnout the deep South are so heavily exposed to racial norms. Thus, the relationship between the Black percentage and White hostility in five studies of electoral politics was stronger in the upper South than in the deep South (e.g., Wasserman & Segal, 1973; Wrinkle & Polincard, 1973; Knoke & Kyriazis, 1977).

Region of the state emerged in one study of electoral politics in Louisiana (Fenton & Vines, 1957). In this study, region of the state was taken as a measure of religious/subcultural differences in the strength of racial norms and as a measure of reliance on a traditional plantation economy. The relationship between the Black percentage and White hostility (viz., suppression of Black voter registration) was significant in the Protestant, traditional region but not in the Catholic, more progressive region.

In two studies, the recent increase in the Black percentage seemed to represent two constructs. When this variable was measured at the same time as White flight, it represented the rate of suburbanization in the district (Clotfelter, 1979). When this variable was measured for a period of time prior to White flight, it could be seen as one apsect of the control threat posed by Blacks (Levine & Meyer, 1977). In the one study that controlled for the recent increase in the Black percentage (Clotfelter, 1979), the relationship between the Black percentage and White flight remained significant.

In another study of White flight (Frey, 1979), city/suburb differences in tax revenues and educational expenditures represented the extent of central city decline. White flight was faster from cities which were losing revenues more rapidly and spending less on education. The Black percentage still contributed to White flight, after these variables were controlled.

Finally, in two studies of White electoral politics (Heer, 1959; Black & Black, 1973b), the "friends and neighbors" vote was the tendency to vote for a local political candidate, regardless of his/her positions on campaign issues. The relationship between the Black percentage and White hostility (viz., support for segregationist candidates) was still significant when this variable was controlled.

Of these ten contextual variables, six seem relevant for this research on White students' hostility toward Blacks. That is, six of the variables that have influenced the relationship between the Black percentage and White hostility in previous studies seem to represent constructs that can be expected to affect the relationship between the Black percentage and White students' hostility toward Blacks. The remaining discussion turns first to the four variables which do not seem relevant here and then to the other six.

The "friends and neighbors" vote may be relevant whenever Whites express racial hostility in the electoral process. In schools where students actually hold elections, a "friends and neighbors" vote might emerge (e.g., among members of a candidate's homeroom or of clubs to which the candidate belongs). But this research concerns White students' racial attitudes, not their behavior in school elections. So the possibility of a "friends and neighbors" vote is not relevant here.

The two city/suburb differences (regarding tax revenues and educational expenditures) do not seem relevant here either. It seems very unlikely that White students consider such matters when they formulate their attitudes on race.[43]

Region of the state might be relevant here, if this research were confined to states in which religious/subcultural differences were specifiable and prominent. However, this research is more broadly gauged, covering schools in all parts of the country.

Six other variables do seem relevant to White students' racial hostility in desegregated schools. That is, they have influenced the relationship between the Black percentage and other indicators of White hostility and can be expected, on substantive grounds, to influence the relationship between the Black percentage and White students' hostility toward Blacks. These six variables are: SES, district size, region, sub-region of the South, school size, and the recent increase in the Black percentage. SES, district size, region, sub-region, and school size are available for this research.

As noted above, the first four of these variables--SES, district size, region, and sub-region--are related to the Black percentage as well as to White hostility. Yet they are usually taken to represent constructs other than the control threat, viz., the status or economic threat posed by Blacks (SES)[44] and the strength of racial norms (district size,[45] region, and sub-region). Thus, controls for these variables may clarify the substantive meaning of the bivariate relationship between the Black percentage and White hostility. The fifth variable has not been related to the Black percentage but has been related to White hostility in interaction with the Black percentage (Fairchild, 1977). So it seems appropriate to include this variable in the analysis as well.

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[43] White students' racial attitudes are, of course, affected by their parents' attitudes (e.g., Stephan & Rosenfield, 1978). If parents are aware of these city/suburb differences (and Frey's (1979) research suggests that they are), then that awareness may affect their own racial attitudes, which in turn could affect their children's attitudes. Thus, even if students themselves do not consider city/suburb differences as they formulate their racial attitudes, there may still be an indirect connection between city/suburb differences and students' racial attitudes.

The analysis which appears in Chapter 5 will include these five variables in order to isolate the unique relationship between the Black percentage and White students' racial hostility. The analysis will also determine whether the unique relationship between the Black percentage and White students' racial hostility takes either of the two nonlinear forms that have been predicted under certain conceptualizations of the control threat. In short, the analysis will assess in some detail the viability of the inference that the Black percentage represents a control threat which spurs White hostility toward Blacks.

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[44] It seems likely that the threat which SES poses for White students in desegregated schools is primarily a status threat rather than an economic threat. Hence (in accord with Thomas' (1979) research), SES will be taken here as a proxy for the status threat posed by Blacks.

[45] As noted above, district or city size may represent at least three different constructs: the logistical difficulty of school desegregation, perceived parental control over their children's education, and the strength of traditional racial norms. The difficulty of desegregation or parents' perceptions of their control over education may indirectly affect White students' racial attitudes, perhaps through the intervening variable of parents' racial attitudes (as was argued for the relationship between city/suburb differences and White students' racial attitudes; see footnote 43). But it seems likely that White students' racial attitudes are more directly affected by the strength of racial norms in their environments. Thus, it will be assumed in this research that district size represents the strength of racial norms--stronger in rural (smaller) districts than in urban (larger) districts.

TABLE 3.1

STUDIES IN WHICH THE J-CURVE FORM OF NONLINEARITY APPEARED ("ACCELERATION POINTS")

Study	Measure of White Hostility	Level of Analysis	Point of Nonlinearity
Heard, 1952	Thurmond support	State	30%
Price, 1957	Black voter registration	County	30%
Fenton & Vines, 1957	Black voter registration	Parish	30%
Matthews & Prothro, 1963	Black voter registration	County	30%
Matthews & Prothro, 1966	White attitudes toward Black voting	County	30%
Giles, 1975	Extent of school desegregation	District	15%
Clotfelter, 1976	White flight from school desegregation	District	56%
Stinchcombe et al., 1969	White flight from school desegregation	School	60%
Duncan & Duncan, 1957	White flight from neighborhood desegregation	Census tract	25%
Pryor, 1971	White flight from neighborhood desegregation	Census block	40%
Rose, 1970	White flight from neighborhood desegregation	Census tract	30%
Farley, et al., 1978	White flight from neighborhood desegregation	Individual	35%

TABLE 3.1 (CONT'D)

STUDIES IN WHICH THE J-CURVE FORM OF NONLINEARITY APPEARED ("START POINTS")

Study	Measure of White Hostility	Level of Analysis	Point of Nonlinearity
Clotfelter, 1976	White flight from school desegregation	District	25%
Giles, 1978	White flight from school desegregation	District, School	30%
Clotfelter, 1979	White flight from school desegregation	District	6%-7%
Duncan & Duncan, 1967	White flight from neighborhood desegregation	Census tract	10%

TABLE 3.2

STUDIES IN WHICH THE INVERTED-U FORM OF NONLINEARITY APPEARED

Study	Measure of White Hostility	Level of Analysis	Point of Nonlinearity
Bullock, 1976	White students' racial attitudes	School	51%-60%

TABLE 3.3

STUDIES IN WHICH "STOP POINTS" APPEARED IN THE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITE HOSTILITY

Study	Measure of White Hostility	Level of Analysis	Point of Nonlinearity
Black, 1973	Support for segregationists	County	30%
Giles, 1975	Extent of school desegregation	District	55%
Cochran & Uhlman, 1973	Extent of school desegregation	County	30%
Vanfossen, 1968	Extent of school desegregation	State	20%
Rossell, 1978a	White flight from school desegregation	District	35%
Giles et al., 1975	White flight from school desegregation	Individual	30%
Rapkin & Grigsby, 1960	White flight from neighborhood desegregation	Census block	15%

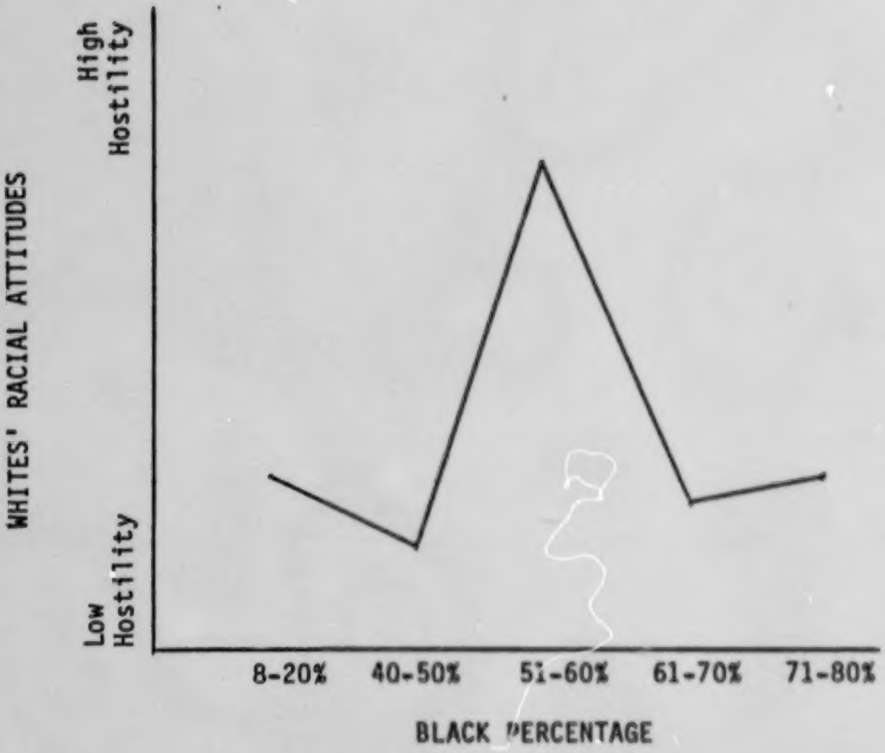

FIGURE 3.1:
RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND
WHITE STUDENTS' RACIAL ATTITUDES IN BULLOCK'S (1976) STUDY

CHAPTER 4
DEVELOPMENT OF THE DATA BASE FOR THIS RESEARCH

This chapter describes the purpose for which, and the procedures by which, the data that are used in this research were originally collected. The chapter also describes how the measures were constructed for each of the variables in this research: the school Black percentage, five other contextual variables, three other control-relevant variables, three indicators of White students' hostility toward Blacks, and one indicator of intergroup conflict.

PURPOSE OF THE DATA COLLECTION

These data were collected by the System Development Corporation (SDC) in 1978-79, as part of an evaluation of the Emergency School Aid Act (ESAA). The Act was passed by Congress in 1972, to assist school districts in (1) meeting human-relations needs which arise from efforts to reduce segregation or discrimination (e.g., the need to improve students' self-esteem or reduce intergroup conflict), and (2) helping minority students overcome the educational disadvantages of racial isolation. The evaluation of ESAA was funded by the U.S. Office of Education in 1977 and is known as the Human Relations Study (HRS). It was divided into three phases, to be conducted over a period of about four years. Each phase was to provide specific kinds of information about ESAA for the Congress, the Office of Education, educational researchers, and human relations practitioners.

Phase One of the study provided descriptive information on ESAA-funded human relations services and their school- and district-level contexts. For this phase, SDC surveyed two samples of schools and the districts in which they were located. One sample covered 373 elementary schools that provided human relations services for fifth-grade students and/or their teachers and parents. The other sample covered 215 secondary schools that provided human relations services for tenth-grade students and/or their teachers and parents.[1] The Phase One samples were selected from ESAA grantees in 1977,[2] and the survey was conducted during the 1977-78 school year. The results of the survey indicated that schools were using ESAA funds to provide compensatory education and a variety of human relations services, e.g., training in human relations for staff members, guidance and counseling for students, development of human relations curricula, promotion of intergroup activities for students, and community outreach efforts. Regarding school context, the results indicated that schools which received ESAA funds in 1977-78 were somewhat larger (mean school size=650 students) and more urban (mean district size=17,067 students) than was average for the nation as a whole (mean school size=490 students; mean district size=2,718 students). Also, 27% of the ESAA-funded schools were in the South; 73%, outside the South. Complete results from the Phase One survey are documented in Wellisch et al. (1979).

The purpose of Phase Two was to assess the effect of ESAA services on intergroup relations among students in schools that received ESAA funding. To accomplish this purpose, SDC selected a sample of

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[1] Schools may have had such services for other grades as well, but the sampling criterion was whether such services were provided for the fifth or tenth grade.

[2] There were 1,423 elementary schools and 350 secondary schools in the universe of ESAA-funded schools in 1977-78.

123 schools from the Phase One sample of 373 elementary schools. The Phase Two sample represented a cross-section of the human relations services and contexts that characterized the Phase One elementary schools. SDC collected data from these 123 schools during the 1978-79 school year, by means of:

(1) a group-administered questionnaire for fifth-grade students, to assess student intergroup relations;

(2) a group-administered test[3] of student academic achievement;

(3) a self-administered checklist for fifth-grade teachers, to obtain certain background information about students in their classes (e.g., sex, school attendance history);

(4) self-administered questionnaires for school and district staff, to describe intergroup relations services and the contexts in which those services operate (e.g., racial composition of the enrollment, regional location, and school size).

The student questionnaire on intergroup relations was administered twice, once in the fall of 1978 and again in the spring of 1979, so that possible changes in student intergroup relations could be assessed. The results of the Phase Two survey indicated that students in schools which provided human relations services for students showed greater gains in attitudes toward desegregation and intergroup friendliness than students in schools which provided only compensatory education services or human relations services for staff or parents. (The meaningfulness of this finding is problematic, since the gains were not large.) A complete account of the results of Phase Two appears in Doherty et al. (1980).

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[3] This was a "domain-referenced" test of achievement. See Doherty et al. (1979).

In Phase Three, twelve schools from Phase Two were studied in depth, through ethnographic methods. The purpose of Phase Three was to elucidate the processes (e.g., leadership styles, delivery techniques) which were associated with the success of human relations services, so that administrators of ESAA and human relations practitioners can make more informed decisions regarding the funding and implementation of human relations services. The results of Phase Three will appear in a report to be published in late 1981.

THE CONSTRUCTION OF MEASURES FOR THIS RESEARCH

Instruments completed during Phase Two (the impact study) provided the data for this research. In 89 of the 123 Phase Two schools, the combined Black and White enrollment was at least 90% of the total school enrollment. For reasons discussed below, these 89 schools constitute the data base for this research.

The questionnaires completed by school and district staff provide data from which measures of the school Black percentage, the five other contextual variables, and the three other control-relevant variables were constructed. Questionnaires completed by students during the fall of 1978 provide data from which three measures of White hostility toward Blacks were constructed. Questionnaires completed by teachers provide one measure of intergroup conflict (not specifically a measure of conflict that is instigated by Whites). Each of these measures is discussed below.

CONTEXTUAL VARIABLES

The contextual variables that are used in this research include: the school Black percentage, Region, Sub-region, School SES, School Size, and Ruralism.

School Black Percentage

One of the staff questionnaires asked principals to record the student enrollment at their schools during October, 1978, broken into the racial/ethnic categories used by the U.S. Office of Civil Rights (OCR). Those categories are: American Indian or Alaskan Native, Asian or Pacific Islander, Black (not of Hispanic origin), Hispanic (Mexican American, Puerto Rican, Cuban, or other Latin American), and White (not of Hispanic origin). The school Black percentage was obtained by dividing the number of Black students by the total number of students in the school.

Usable data were available for all 89 Black/White schools. The Black percentage ranged from 3.2% to 99.1%, with a mean of 39.4% and a standard deviation of 19%. The distribution of schools[4] within this range was as follows:

School Black Percentage	N	%
3.2 - 19.9%	14	15.7
20.0 - 39.9	34	38.2
40.0 - 59.9	28	31.5
60.0 - 79.9	9	10.1
80.0 - 99.1	4	4.5

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[4] Frequencies for the school Black percentage and all other variables except Region and Sub-region are reported here within sub-ranges, for the sake of convenience. In the actual data analysis, these variables were treated as continuous variables.

Region and Sub-region

One of the sampling criteria for schools in the HRS was region of the country. Accordingly, identification codes on all of the Phase Two questionnaires included a two-digit code for the state in which the school was located. Region was created as a dummy variable, i.e., South vs. non-South. The following eleven states were included in the South: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia. Sub-region of the South was also created as a dummy variable, i.e., deep South vs. upper South. Five states were included in the deep South: Alabama, Georgia, Louisiana, Mississippi, and South Carolina. The other six Southern states were included in the upper South.

Fifty-two of the 89 Black/White schools were located in the South. Of these, 22 were located in the deep South. The scoring for Region was (0) non-South, and (1) South. For Sub-region, the scoring was (0) upper South, and (1) deep South.

School Socio-economic Status

Data for this variable were obtained through two instruments: the teacher checklist and the test of student academic achievement. On the checklist, teachers recorded whether each student in their classes was eligible for free or reduced-price lunch services[5] and estimated the educational level attained by the student's parents. The achievement test produced two scores for each student: math achievement and verbal achievement. School-level means for these four measures--eligibility for free or reduced-price lunches, parents' education, math achievement, and verbal achievement--were combined to form an additive scale of school-level socio-economic status (School SES).[6]

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[5] In 1978-79, students whose gross family income was no more than 125% of the Federal poverty level were eligible for free school lunches. Students whose gross family income did not exceed 195% of the Federal poverty level were eligible for reduced-price lunches. Poverty level is a function of income and family size. For example, the poverty level for a family of four in 1978-79 was about $7,160; for a family of six, about $9,470 (Food Research and Action Center, 1979).

All 89 schools had usable data from which to construct this scale. The range of possible values on the scale was
Observed values ranged from 11.2 to 23.0, with a mean of 16.6 and a standard deviation of 2.2. Higher values on the scale indicate higher SES. The distribution of schools by SES was as follows:

School SES	N	%
11.2 - 13.9	8	9.0
14.0 - 15.9	30	33.7
16.0 - 17.9	29	32.6
18.0 - 19.9	16	18.0
20.0 - 23.0	6	6.7

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[6] An additive scale seemed more appropriate as a proxy for SES than any of these four measures taken singly. Eligibility for free or reduced-price lunches is probably not a sensitive enough indicator at lower levels of SES, since students who can receive reduced-price lunches are well above the Federal poverty level (cf. footnote 5). Educational level is often combined with other socio-economic variables to measure SES, but it is not usually employed by itself for that purpose. Finally, academic achievement is closely correlated with SES at the school-level (r=.73 in Mayeske et al.'s (1972) nationwide study). But achievement is probably a more satisfactory indicator of SES if it is combined with other variables which more clearly represent SES in substantive terms, e.g., parents' education. Thus, it seemed appropriate to combine the available measures of SES into a composite measure, thereby overcoming the possible disadvantages of each single measure.

School Size

As noted above, principals were asked to record the enrollment at their schools by racial/ethnic categories. The total number of students in the school was used as a measure of School Size.

Usable data were available for all 89 Black/White schools. School Size ranged from 131 students to 1,105 students, with a mean of 443.3 and a standard deviation of 180.5. The distribution of schools within this range was:

School Size	N	%
131 - 299	17	19.1
300 - 499	43	48.3
500 - 699	20	22.5
700 - 899	7	7.9
900 - 1105	2	2.2

Ruralism

A questionnaire was sent to the superintendent of each district in which a Phase Two school was located. On this questionnaire, the superintendent was asked to record two measures of district size: the number of students in the district and the number of elementary schools in the district. For reasons cited in Chapter 3 (pp. 127, 178), district size will be used here as a proxy for ruralism.

Usable data on the number of students in the district were available for 87 of the 89 Black/White schools. The number ranged from 355 to 288,251, with a mean of 12,166.3 and a standard deviation of 26,591.5. Usable data on the number of elementary schools in the district were available for 86 of the Black/White schools. The mean number of elementary schools was 14.3, with a minimum of one and a maximum of 173. The standard deviation was 21.9.

These two measures of district size were very highly correlated (r=.96). In the analyses which appear in Chapter 5, the number of students in the district was used as the measure of Ruralism. The distribution of schools along the range of the total district enrollment was as follows:

Ruralism (District Size)	N	%
355 - 499	42	48.3
5000 - 9999	24	27.6
10000 - 29999	13	14.9
30000 - 59999	5	5.8
60000 - 228251	3	3.4

CONTROL-RELEVANT VARIABLES

The three control-relevant variables that were used in this research, in addition to the school Black percentage, include: Staff Racial Composition, Black Busing, and Classroom Resegregation.

Staff Racial Composition[7]

An item on the principal questionnaire asked principals to record the number of staff members at their schools, broken into the same OCR categories that were used to record the student enrollment. The item also asked for a breakdown into job categories: teachers, administrators, professional support staff (e.g., counselors, librarians, speech therapists), clerks or secretaries, and aides.

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[7] Staff Racial Composition is, in this research, equivalent to the percentage of Blacks on the school staff. This variable is referred to as Staff Racial Composition to distinguish it clearly from the School Black Percentage, i.e., the percentage of Blacks in the student enrollment.

Usable data on the racial composition of the staff as a whole (combining all job categories) were available for all 89 Black/White schools. Staff racial composition ranged from 2.6% Black to 100% Black, with a mean of 30.2% and a standard deviation of 17.5%. Usable data on the racial composition of the teaching staff were available for 88 schools. Teacher racial composition ranged from 0% Black to 100% Black, with a mean of 27.8% and a standard deviation of 17.7%. Since these two measures were very highly correlated (r=.87), the racial composition of the staff as a whole was used as the measure of Staff Racial Composition. In accord with research cited in Chapter 2, a higher value on this measure (i.e., a higher percentage of Blacks on the staff) was taken to indicate a lower degree of White control. The distribution for this measure is as follows:

Staff Racial Composition	N	%
2.6 - 19.9%	25	28.1
20.0 - 39.9	42	47.2
40.0 - 59.9	18	20.2
60.0 - 79.9	3	3.4
80.0 - 100.0	1	1.1

Black Busing

The checklists completed by fifth-grade teachers at the Phase Two schools asked teachers to record the race/ethnicity of each student in their classes and to record whether the student is bused to the school, for any purpose and specifically for the purpose of desegregation. The percentage of Blacks who are bused to the school for the purpose of desegregation was calculated by dividing the number of Blacks bused for desegregation by the total number of Blacks enrolled at the school.[8]

Usable data on this variable were available for all 89 Black/White schools. The percentage of Blacks who are bused for desegregation ranged from 0% to 100%, with a mean of 31.9% and a standard deviation of 38.1%. Again, in accord with the research cited in Chapter 2, higher values on this variable were taken to indicate greater White control. The distribution for Black Busing is as follows:

Black Busing	N	%
0.0 - 19.9%	49	55.1
20.0 - 39.9	9	10.1
40.0 - 59.9	7	7.9
60.0 - 79.9	7	7.9
80.0 - 100.0	17	19.0

Classroom Resegregation

As noted above, fifth-grade teachers were asked to record on checklists the race/ethnicity of each student in their classes. From these data, the percentage of Blacks in each fifth-grade class was calculated. To measure classroom resegregation, the absolute values of the difference between the school Black percentage and each classroom Black percentage were first added and then divided by the total number of fifth-grade classrooms in the school. This variable provides a measure of the extent to which classes in the Phase Two schools were segregated.[9]

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[8] While Blacks who are bused for any purpose may live no farther away from the school and be no less involved in school affairs than Whites (bused or non-bused), Blacks who are bused to the school to promote desegregation are quite likely to live outside the geographic attendance zone for the school and to be considerably less involved in school affairs (Deslonde, 1978). Thus, the percentage of Blacks who are bused for desegregation is probably more control-relevant than the percentage of Blacks bused for any purpose. The mean percentage of Blacks bused for any purpose is 59% in this set of schools; the mean percentage bused for desegregation, 32%.

Usable data were available to all 89 schools. The school-level averages for Classroom Resegregation ranged from 2.2% to 38.1%, with a mean of 12.7% and a standard deviation of 7.7%. Higher values on Classroom Resegregation indicate a stronger pattern of racial separation within the school. Thus, in line with research cited in Chapter 2, higher values indicate greater White control at the school level. The distribution of values for Classroom Resegregation is:

Classroom Resegregation	N	%
2.2 - 9.9%	38	42.7
10.0 - 13.9	24	27.0
14.0 - 17.9	12	13.5
18.0 - 27.9	11	12.3
28.0 - 38.1	4	4.5

WHITE HOSTILITY TOWARD BLACKS

A questionnaire concerning intergroup relations was administered to students in the Phase Two schools on two occasions, once in the fall of 1978 and again in the spring of 1979. The results from fall,

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[9] Classroom resegregation is probably less extensive in schools with a very low or very high Black percentage, since there can be relatively little difference between the school Black percentage and any classroom Black percentage in such schools. However, most of the Black/White schools have substantial percentages of both Blacks and Whites. (For example, 94% of the schools are at least 10% Black and 10% White.) Thus, the likely attenuation of classroom resegregation at very low and very high Black percentages does not pose a serious problem for this research.

1978, were used here in constructing three measures of White students' hostility toward Blacks: Attitudes toward Desegregation, Unfriendliness, and Attitudes toward Contact with Blacks.

Since the questionnaire was designed to assess intergroup relations at the school level, the items which comprise the questionnaire do not specifically call for students' attitudes and behavior toward Whites, Blacks, Hispanics, and other groups. However, in 89 of the 123 Phase Two schools, Whites and Blacks were at least 90% of the total enrollment. For these 89 schools, then, it is reasonable to assume that (1) Whites' intergroup experiences at school are essentially experiences with Blacks, and (2) when items ask about students of a "different race or ethnic group than you," Whites' responses pertain essentially to Blacks, and vice versa. Accordingly, these 89 Black/White schools provide the data set for this analysis of White hostility toward Blacks.[10]

Attitudes toward Desegregation

This measure of White students' attitudes toward desegregation includes six items. For each item, responses are listed as they appeared in the questionnaire. Items were scored (as indicated in parentheses) so that higher values represent less favorable attitudes toward desegregation. The items are:

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[10] In 62 of the Black/White schools, non-Black minority students were also present. However, the percentage of Black or White students well exceeded the percentage of non-Black minority students in all of these schools. For instance, in two of the Black/White schools, Hispanics comprised 9% of the enrollment. But Blacks or Whites comprised at least 24% of the enrollment in those two schools. Thus, even schools where non-Black minority students are enrolled are essentially Black/White schools.

It should be noted that the restriction of the analysis to Black/White schools is consistent with the third assumption in Blalock's account of the control threat, viz., the presence of only two groups in the setting. (Cf. Chapter 2, pp. 48-49.)

> If you could choose the kind of school you could go to, what kind of students would it have?[11]
>
> (2) A mixture of black, white, and Hispanic students
> (3) All white students
> (1) It doesn't matter to me
>
> Do you think it is a good idea for students in the same classroom to be all of the same race or ethnic group?
>
> (1) Yes
> (0) No
>
> Do you think that it is a good idea for children of all races and ethnic groups to start going to school together from kindergarten or first grade on?
>
> (0) Yes
> (1) No
>
> Do you think that white students can get more out of school if they go to school with students of all races and ethnic groups?
>
> (0) Yes
> (1) No

---

[11] This item actually included two other possible responses: "All black students" and "All Hispanic students." The data anlysis for this research omitted these responses for two reasons. First, it would be impossible, strictly speaking, for Whites to attend schools that are all-Black or all-Hispanic. Thus, Whites who chose either response may have done so inadvertently or may have read "all" to mean "predominantly." Second, fewer than 1% of the White students in the sample chose either of these responses. Consequently, "All black students" and "All Hispanic students" could be omitted from the data analysis without affecting the overall distribution of responses to this item in any important way.

The response favoring racially mixed schools was scored lower (i.e., as more favorable) than the response expressing no preference, because the former response indicates approval for school desegregation, while the latter response indicates indifference. Thus, the scoring for the three responses to this item moves from a preference for desegregated schools (at the lower end) to a preference for White schools (at the upper end).

Do you think that black students can get more out of school if they go to school with students of all races and ethnic groups?

(0) Yes
(1) No

Do you think it is a good idea for students of all races and ethnic groups to play together on the playground?

(0) Yes
(1) No

Responses to these six items were combined to form an additive scale. Scores for White students were then aggregated to produce a school-level measure of Whites' attitudes toward desegregation.

Usable data on this scale were available for 86 of the 89 Black/White schools in the Phase Two sample. At the individual level, possible values ranged from 1 to 8. Observed school-level means ranged from 4.0 to 7.7, with a mean of 4.8 and a standard deviation of 0.7. Higher values indicate less favorable attitudes toward desegregation. The distribution of values for this measure is:

Attitudes toward Desegregation	N	%
4.0 - 4.6	6	7.0
4.7 - 5.3	31	36.0
5.4 - 6.0	35	40.7
6.1 - 6.7	8	9.3
6.8 - 7.7	6	7.0

Unfriendliness toward Blacks

White students' unfriendliness toward Blacks, as perceived by Blacks, was assessed through two items. The term "unfriendliness" is used here (rather than the positive term "friendliness") because the items were scored so that higher values indicate less friendliness. The items are:

> Do you think students of different races or ethnic groups than yours are easy to make friends with?
>
> (1) Yes, they are easy to make friends with.
> (2) Some are easy and some are hard to make friends with.
> (3) No, they are hard to make friends with.
>
> Do you think students of different races or ethnic groups than yours are friendly?
>
> (1) Yes, they are friendly.
> (2) Some are friendly and some are unfriendly.
> (3) No, they are unfriendly.

Blacks' responses to these items were added to form a scale of the perceived unfriendliness of other groups toward Blacks, and school means were obtained. The use of data only from schools with predominantly Black/White enrollments produced a scale of the perceived unfriendliness of Whites toward Blacks.

It should be noted here that unfriendliness is a broadly gauged construct, incorporating not only the relative frequency of friendly and unfriendly intergroup contacts but also the degree to which racial groups avoid contact with each other (Patchen & Davidson, 1973). Hence, unfriendliness probably represents a summary rating of Blacks' perceptions of (1) the affective quality of Whites' interactions with Blacks, and (2) the degree to which Whites seem to avoid contact with Blacks.[12]

---

[12] There is no way to assess the accuracy of Blacks' perceptions of Whites' unfriendliness. Thomas (1979) had this same problem with his measure of school racial climate. (See Chapter 3, p. 158.) In an important sense, though, it is students' perceptions of intergroup unfriendliness (as opposed to, e.g., an observer's perceptions or some sort of projective test) that contribute most directly to the quality of intergroup relations in schools.

Usable data were available for 87 of the Black/White schools. At the individual level, possible values ranged from 2 to 6. The observed school-level values ranged from 2.0 to 4.4, with a mean of 3.7 and a standard deviation of 0.3. As noted above, higher values on this scale indicate that Blacks perceive Whites to be less friendly toward Blacks. The distribution of school-level values for this scale is:

Unfriendliness	N	%
2.0 - 2.8	1	1.1
2.9 - 3.6	15	17.2
3.7 - 3.9	54	62.2
4.0 - 4.4	17	19.5

Attitudes toward Contact with Blacks

The measure of Whites' attitudes toward contact with Blacks includes three items. These items were scored (as indicated in parentheses) so that higher values represent less favorable attitudes toward contact. The items are:

> What do you think your friends would think if you chose to sit next to a student of a different race or ethnic group than you on a class field trip?
>
> (2) They would think badly of me.
> (1) It wouldn't matter to them.
>
> What do you think your friends would think if you ate lunch at school with a student of a different race or ethnic group than you?
>
> (2) They would think badly of me.
> (1) It wouldn't matter to them.
>
> What do you think your friends would think if you chose to sit next to a student of a different race or ethnic group than you at a school assembly?
>
> (2) They would think badly of me.
> (1) It wouldn't matter to them.

These three items were combined to form an additive scale, and school-level means for Whites' attitudes toward contact were obtained. As noted above, only the data for Black/White schools were used here, so this scale is essentially a measure of Whites' attitudes toward contact with Blacks.

These items did not require that students distinguish the opinions of their White friends from the opinions of their non-White friends. However, since students' friendship choices in desegregated schools are usually same-race choices (e.g., Schofield & Sagar, 1977; Singleton & Asher, 1977; Wolf & Simon, 1975), it is reasonable to assume that most White respondents were referring to White friends when they answered these items.

Usable data were available from 86 schools. At the individual level, possible values ranged from 3 to 6. Observed school-level values ranged from 3.0 to 4.5, with a mean of 3.7 and a standard deviation of 0.3. Higher values indicate less favorable White attitudes toward contact with Blacks. The distribution of values for this variable is as follows:

Attitudes Toward Contact	N	%
3.0 - 3.2	10	11.6
3.3 - 3.5	24	27.9
3.6 - 3.8	27	31.4
3.9 - 4.1	19	22.1
4.2 - 4.5	6	7.0

INTERGROUP CONFLICT

One additional measure of racial hostility (not specifically Whites' hostility) is available from a questionnaire completed by fifth-grade teachers at the schools. One item on that questionnaire asked:

> How much conflict is there at this school between students of different races or ethnic groups compared to the amount of conflict within each group? (Mark one.)
>
> (2) About the same
> (3) More conflict between groups than within
> (1) Less conflict between groups than within

This item was scored (as indicated in parentheses) so that higher values represent more intergroup conflict than would be expected if conflict at the school occurred without regard to race. All valid responses from teachers at each school were summed and then divided by the number of valid responses. Since, as noted above, the schools used in this research were Black/White schools, this measure essentially concerns teachers' estimates of conflict between Whites and Blacks.

Even though this measure is not specifically a measure of the intergroup conflict instigated by Whites, it is included here because it provides a rating of racial hostility at these schools from a source other than students and because it appeared in a format different from the format of items in the student questionnaire. Moreover, as noted above, the measure provides a rating of intergroup conflict that takes the "expected" or "chance" frequency of intergroup conflict into account. Accordingly, this measure overcomes the problem which arose in some previous studies of the relationship between the Black percentage and Whites' sociometric choices (Davis, 1973; Shaw, 1973; Fairchild, 1977). This problem, specifically, was that Whites have proportionately more Blacks (and fewer Whites) with whom to interact in schools with a higher Black percentage. (Cf. Chapter 3, pp.159-161.)

Usable data on this measure were available for 83 of the 89 Black/White schools. Possible values ranged from 1 to 3. Observed values ranged from 1.0 to 2.8, with a mean of 1.8 and a standard deviation of 0.4. Higher values indicate more intergroup conflict than would be expected if there were no racial pattern in the incidence of conflict (e.g., fights, arguments, name-calling) experienced by students in the school. The distribution of values for intergroup conflict at the Phase Two schools is:

Intergroup Conflict	N	%
1.0 - 1.4	12	14.5
1.5 - 1.8	32	38.5
1.9 - 2.2	34	41.0
2.3 - 2.8	5	6.0

TREATMENT OF MISSING DATA

The three measures of White hostility from the student questionnaire are multi-item scales. As is usually the case, there were students who did not provide a valid response to every item in each scale. To take this fact into account, scores for the individual items in each scale were added, divided by the number of items for which a valid response was on record, and then multiplied by the total number of items in the scale. In effect, this procedure estimates what the students' response(s) would have been to the missing item(s). Of course, as the proportion of missing items on any scale increases, the error introduced by this procedure also increases. Therefore, in cases where more than half of the items on a scale lacked valid responses, the entire scale was counted as missing. For each item that was used in constructing the three measures of White hostility, the number of missing cases was less than 1% of the total number of cases. School means for these measures were therefore based on valid responses from virtually all fifth-grade students in the sampled schools.

The measure of intergroup conflict is a single-item measure. No minimal proportion of valid responses for a school was established. Cases in which teachers did not record a valid response to this item were simply not counted when school means were computed. About 19% (89 out of 475) of the teachers' questionnaires were missing a valid response to this item. Thus, school means for this measure were based on valid responses from most fifth-grade teachers in the sampled schools.[13]

RELIABILITY OF THESE MEASURES

This section presents a brief discussion of the reliability of the measures just described. First, the contextual and control-relevant variables are discussed. Then the measures of White hostility and intergroup conflict are discussed.

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[13] This percentage of missing data is high enough to suggest the possibility of bias in the school means for this measure. However, interviews with teachers in a subset of these schools (n=145 teachers) disclosed no particular resistance to this item. Hence, most of the missing data are probably the result of the respondents' oversight.

Contextual and Control-Relevant Variables

For the sake of convenience in presentation, the contextual and control-relevant variables are discussed in three sets. One set includes the School Black Percentage, School Size, Ruralism, and Staff Racial Composition. Another set includes Region and Sub-region. The third set includes School SES, Classroom Resegregation, and Black Busing.

During the spring of 1979, SDC personnel visited a subsample of 39 Phase Two schools, to conduct observations of educational practices at those schools and to conduct in-depth interviews with school and district staff. These interviews repeated some of the items which appeared on the Phase Two questionnaires, including items from which the School Black Percentage, School Size, Ruralism, and Staff Racial Composition were derived. Those items are: district enrollment (Ruralism), school enrollment (School Black Percentage, School Size) and composition of the school staff (Staff Racial Composition). Accordingly, the questionnaire responses for 39 of the Phase Two schools could be verified by comparing them with responses to the same items in subsequent interviews. This comparison revealed only a few differences, all of which were negligible.[14] Thus, it is likely that student enrollment, district enrollment, and staff composition were quite stable for all 123 Phase Two schools and that questionnaire respondents made no serious recording errors on those items.

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[14] Fluctuations in student enrollment and staff composition often occur during a school year. Thus, the appearance of minor differences between fall, 1978 questionnaire responses and spring, 1979 interview responses was not surprising. In no case was a difference in these responses large enough to suggest that fundamental changes had occurred or that respondents had misunderstood the items on the questionnaire.

As noted above, Region and Sub-region were derived from identification numbers that were assigned to all schools in the Human Relations Study. These numbers included a two-digit code for the state in which each school was located. This code was verified when the Phase Two sampel was selected, so the possibility of error in Region and Sub-region is virtually nil.

The other contextual or control-relevant variables in this research are School SES, Classroom Resegregation, and Black Busing. No direct indicators of reliability are available for these variables. But it seems reasonable to assume adequate levels of reliability. Most of the items from which these variables were derived call for factual, rather than subjective, responses;[15] hence, the problems that pertain particularly to subjective responses (e.g., item order effects or response sets) are probably not critical here. Moreover, respondents were strongly encouraged to consult school records when they were unsure of the correct response for any item, thus minimizing the possibility of error due to guesswork. Finally, all of the items from which these three variables were derived are individual-level items (e.g., eligibility of a student for free or reduced-price lunches). There may be some error in responses to these items at that level, but this possibility is greatly reduced by the aggregation of responses to the school level (e.g., the use of a school-level percentage of students eligible for free or reduced-price lunches).

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[15] Factual items asked whether a student is eligible for free or reduced-price lunches (School SES), whether the student is bused to the school (Black Busing), and what the student's race/ethnicity is (Black Busing, Classroom Resegregation). The students' scores on math and verbal achievement (School SES) can also be considered factual data. One additional item, which asked teachers to estimate the educational level of each student's parents (School SES), is subject to possible error in teachers' perceptions. Since this was only one of four items in the School SES measure, it is unlikely that error in responses to that item seriously compromises School SES.

White Hostility and Intergroup Conflict

Regarding the three measures of White hostility toward Blacks, data are available for assessing two aspects of reliability: internal consistency (inter-item reliability) and stability (test-retest reliability). The inter-item correlations for these measures (Table 4.1) are α=.58 for Attitudes toward Desegregation (a six-item scale), α=.41 for Unfriendliness (a two-item scale), and α=.74 for Attitudes toward Contact (a three-item scale). The relatively low alpha for Unfriendliness is not surprising, since that measure is based on only two items. The alphas for the other two measures are lower than might have been hoped. But, given the number of items in the scales and the measurement difficulties usually associated with attitudinal items, all three alphas are about as high as could be expected and provide at least adequate support for the internal consistency of the measures (Doherty et al., 1979).

The test-retest coefficients reported in Table 4.1 are based on a pretest of the intergroup relations questionnaire with 33 elementary-school students in the Los Angeles area. The questionnaire was administered twice, at intervals approximately two weeks apart. For various reasons, the scales that were used to assess intergroup relations in

Phase Two do not correspond to the scales which have been developed for this dissertation. For instance, Attitudes toward Desegregation originally included eight items, but two of the eight were not appropriate here.[16] Thus, the test-retest coefficients which emerged in the pretest data do not necessarily represent the coefficients that would emerge for the revised scales.[17] However, in the absence of item-level data on test-retest reliability, coefficients for the original scales are presented. For each scale, the coefficient is acceptable, though not as high as might have been hoped. Again, the low number of items and the difficulty of measuring attitudes probably placed a ceiling on these coefficients. In any case, the problems associated with low reliability may be reduced somewhat by aggregating students' scores to the school level (Langbein & Lichtman, 1978), as was done for this research.

Finally, there are no available data regarding the reliability of teachers' estimates of intergroup conflict. Since there was no indication that teachers could not or would not complete this item (e.g., a high non-response rate or complaints in the margins), it seems reasonable to assume that the item posed no special problems for respondents. In any event, the reliability of this measure is less critical since it is not a measure of White hostility. It is instead a measure of intergroup conflict at the school level and is included in this research because it may shed further light on the variables of primary interest, i.e., the three measures of White hostility.

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[16] These two items concerned the respondent's perceptions of other students' attitudes toward desegregation and respondent's perceptions of the value of desegregation for Hispanic students. The former item was omitted so that the revised scale would pertain specifically to the respondent's own attitudes. The latter item was omitted so that the revised scale would pertain specifically to the respondent's attitudes toward desegregation with Blacks.

[17] In fact, since the original scales have more items, these coefficients may overestimate the coefficients for the revised scales.

SUMMARY

This chapter has described the purpose for which, and the procedures by which, the data that are used in this research were originally collected. In brief, the data were collected in 1978-79 as part of an evaluation of the Emergency School Aid Act. The data collection included a group-administered student questionnaire regarding intergroup relations, a group-administered test of academic achievement, a self-administered checklist for teachers regarding their students' background characteristics, and self-administered questionnaires for school and district staff regarding intergroup relations among students, human relations services at their schools, and the contexts in which those services operate.

This chapter has also described how measures were constructed for this research. The School Black Percentage, five other contextual variables, and three other control-relevant variables were constructed from data in the school and district staff questionnaires. The contextual variables are: School SES, School Size, Region, Sub-region, and Ruralism. The control-relevant variables are: Staff Racial Composition, Classroom Resegregation, and Black Busing. Three measures of White students' hostility toward Blacks were constructed from the student questionnaire on intergroup relations. Those measures are:

Attitudes toward Desegregation, Unfriendliness toward Blacks, and Attitudes toward Contact with Blacks. Finally, one measure of intergroup hostility (not specifically a measure of White hostility) was constructed from the teacher questionnaire: Intergroup Conflict at the school.

TABLE 4.1

INTER-ITEM AND TEST-RETEST RELIABILITY COEFFICIENTS FOR THREE MEASURES OF WHITE HOSTILITY

	INTER-ITEM RELIABILITY			TEST-RETEST RELIABILITY*		
	Alpha	Number of Items	Number of Students	R	Number of items	Number of Students
Attitudes toward Desegregation	.58	6	9,516	.53	8	33
Unfriendliness	.41	2	9,541	.39	6	33
Attitudes toward Contact	.74	3	9,514	.38	7	33

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* These coefficients represent test-retest reliability for the Phase Two scales measuring attitudes toward desegregation (which included six items used for the Attitudes toward Desegregation scale), general perceptions of other groups in school (which included two items on the perceived friendliness of other groups), and perceived attitudes of others (which included three items on the perceived attitudes of respondents' friends). The retest was conducted approximately two weeks after the first test.

CHAPTER 5

CONTEXTUAL AND CONTROL-RELEVANT ANALYSES OF WHITE HOSTILITY IN DESEGREGATED SCHOOLS

This chapter presents data analyses which meet three purposes. First, a contextual analysis assesses the unique relationship between the Black percentage and White hostility after other contextual variables are partialed out of the relationship. Second, a control-relevant analysis examines the relationship between the Black percentage and White hostility in schools where other control-relevant variables indicate strong White control and in schools where those variables indicate weak White control. Third, in both of these analyses, the relationship between the Black percentage and White hostility is examined for evidence of nonlinearity in either of two forms, the J-curve or the inverted-U.

CONTEXTUAL ANALYSIS

It was noted in Chapter 1 that certain other contextual variables are typically associated with the Black percentage and may therefore account for the relationship between the Black percentage and White hostility. These other variables include: school SES, region, subregion of the South, ruralism, and school size. This section describes a series of regression analyses which examine the relationship between the Black percentage and White hostility with these other variables held constant. The section (1) reports correlations among these contextual variables and among the measures of White hostility and intergroup conflict, (2) describes the analytical techniques used in the contextual analysis, and (3) reports the results of analyses using the full set of 89 Black/White schools and analyses within contextual subsets of schools (e.g., low-SES schools and high-SES schools).

CORRELATIONS AMONG CONTEXTUAL VARIABLES AND AMONG HOSTILITY MEASURES

This first part of the contextual analysis examines correlations between the Black percentage and the other contextual variables and then examines correlations among the measures of White hostility and intergroup conflict.

Correlations Among Contextual Variables

The correlation matrix in Table 5.1 indicates that, as expected, the Black percentage is negatively related to School SES (r=-.464), positively (though non-significantly) related to Region (r=.130), and positively related to Sub-region (r=.329). The expected positive relationship between the Black percentage and Ruralism did not emerge (r=.078).[1] Finally, the relationship between the Black percentage and School Size, for which previous studies offered no specific expectations, was not significant (r=0.12).

In general, these findings support the possibility that the relationship between the Black percentage and White hostility could be due to other contextual variables, viz., School SES, Region, or Sub-region. The other two contextual variables--Ruralism and School Size--are also retained for further analyses, to uncover any interaction effects that may emerge between these variables and the Black percentage.

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[1] Possibly, district size is not a fully satisfactory measure of ruralism, despite the high correlation between these variables (r=-.71) reported in Chapter 3.

Correlations Among Measures of White Hostility and Intergroup Conflict

Table 5.2 is a correlation matrix for three measures of White hostility and one measure of intergroup conflict. Only one of the three correlations between measures of White hostility is significant, viz., the correlation between Attitudes toward Desegregation and Attitudes toward Contact (r=.468). This correlation suggests that Whites who disapprove of school desegregation also disapprove of actual contact with Blacks in desegregated schools. However, neither of these attitudinal measures is significantly related to Whites' unfriendliness toward Blacks. That is, it appears that unfavorable attitudes among Whites are not reflected in their actual behavior toward Blacks. It should be reiterated here that the two attitudinal measures were based on White students' self-reports, while the Unfriendliness measure was based on Black students' perceptions of White behavior. Thus, one possible explanation for the absence of association between these measures is that Blacks' perceptions of White unfriendliness are simply inaccurate. Additional possibilities are that the absence of association is due to the low reliability of the Unfriendliness measure (see Chapter 4, pp. 208-210), that Whites who are less friendly toward Blacks were more likely to give "socially desirable" responses to the attitudinal items, or that aggregation to the school level obscured stronger relationships at the individual level. Finally, it is also possible that these attitudinal and behavioral measures are simply divergent aspects of White hostility, i.e., that Whites' attitudes and behavior toward Blacks actually do vary independently.[2] In any case, there is no way to know whether any of these measures, attitudinal or behavioral, is a more satisfactory indicator of White hostility than the others. It therefore seems appropriate to stipulate that the presumed connection between each measure and the underlying construct (White hostility) remains uncertain and to keep the distinctions among these measures clear as the data analysis unfolds.

The non-significant correlations between intergroup conflict and each measure of White hostility may be due to one or more of the possibilities cited above. However, since intergroup conflict is presumably a function of Blacks' behavior toward Whites as well as Whites' behavior toward Blacks, the absence of association between intergroup conflict and White hostility is not particularly troublesome.

ANALYTICAL TECHNIQUES

The contextual analysis entails a series of regressions in which the Black percentage and other contextual variables are used as predictors of White hostility and intergroup conflict. In one set of simple regressions, the Black percentage is used as the only predictor of White hostility and intergroup conflict, first in a linear regression and then in a nonlinear regression. The equation for the linear regression is:

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[2] In previous studies linking attitudes to behavior, attitudinal measures of a construct have often been weakly correlated or completely uncorrelated with behavioral measures of the same construct (Fishbein & Ajzen, 1975; Wicker, 1969). Some studies have strengthened the attitude/behavior linkage by including additional variables in the analysis, e.g., as intervening variables. Among these variables are the attitudes of respondents' reference-others, the respondents' behavioral intentions, and certain features of the situation in which the respondent is placed. (Cf., e.g., Fishbein & Ajzen, 1975; Brigham, 1971; DeFriese & Ford, 1969; Ewens & Ehrlich, 1971; Fendrich, 1967.) If such variables had been available for this research, it might have been possible to demonstrate a stronger relationship between Whites' attitudes toward desegregation or contact and their behavior toward Blacks.

$$Y = a + b_1BP + e \quad (5.1)$$

In this and subsequent equations, "Y" represents one of the three measures of White hostility or the measure of intergroup conflict, "a" represents the constant, "b_1BP" represents the regression coefficient for the Black percentage, and "e" represents the error term. The expectation is that b_1 is positive, i.e., that White hostility increases as the Black percentage increases.

The equation for the nonlinear regression is:

$$Y = a + b_1BP + b_2BP^2 + e \quad (5.2)$$

Here, the squared Black percentage (BP^2) has been added to the equation, to see whether a combination of linear and quadratic (squared) terms provides a better fit to the data for each Y variable. If b_1 is positive and b_2 is positive, the increase in White hostility accelerates as the Black percentage increases (the J-curve form of nonlinearity). If b_1 is positive and b_2 is negative, White hostility increases to some particular Black percentage and then declines past that percentage (the inverted-U form).[3] The precise contours of either form depend on the relative size of the coefficients.[4]

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[3] These are not the only possibilities, of course. But they are the possibilities that emerged most clearly in previous studies (cf. Chapter 3).

In a subsequent set of partial regressions, other contextual variables are used as additional predictors of White hostility and intergroup conflict. The equation for the expanded linear regression is:

$$Y = a + b_1BP + b_3SES + b_4SS + b_5R + b_6S + e \quad (5.3).$$

In this equation (and in queation 5.4 below), b_3SES represents the regression coefficient for School SES, b_4SS represents the coefficient for School Size, b_5R represents the coefficient for Ruralism, and b_6S represents the coefficient for a composite variable called "South."[5] The key analytical question here is: Does the coefficient for the Black percentage contribute significantly to the prediction of White hostility and intergroup conflict with these other contextual variables in the equation?

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[4] In a nonlinear regression, BP and BP^2 are, of course, not two different variables. They are one variable, the Black percentage, broken into linear and quadratic components. The analytical question is: Does the quadratic component add significantly to the predictive accuracy of the equation? If it does, then the relationship between the Black percentage and White hostility is nonlinear in some form. Figure 5.1 depicts a hypothetical relationship between the Black percentage and White hostility, in which the linear component ($b=1.0$) is positive and the quadratic component ($b=-1.0$) is negative. At lower Black percentages, the squared Black percentage is only a small fraction of the unsquared Black percentage. (For example, when BP is 10%, BP^2 is 1%.) So, even though the coefficients are equal in strength, at lower Black percentages the quadratic component (depicted in line b_2) contributes much less to the prediction than the linear component (depicted in line b_1), and the relationship between the Black percentage and White hostility remains positive (line A). As the Black percentage further increases, though, the relative contribution of the squared Black percentage becomes larger. That is, the quadratic component noticeably "pulls" the relationship in a negative direction. The combination of these two components across the full range of the Black percentage thus produces the inverted-U curve depicted in line A.

[5] There is an obvious linear dependence between Region (South vs. non-South) and Sub-region (deep South vs. upper South). Thus, for regressions in this analysis, Region and Sub-region were combined into one variable, South, with three values: (0) non-South, (1) upper South, and (2) deep South. The zero-order correlation between the Black percentage and South is positive and significant ($r=.229$, $p < .05$). Correlations among the other predictors (reported in Table 5.2) are not high enough to suggest the danger of multi-collinearity.

The equation for the expanded nonlinear regression is:

$$Y = a + b_1BP + b_2BP^2 + b_3SES + b_4SS + b_5R + b_6S + e \quad (5.4)$$

Here, the key question is: Does the quadratic component (b_2BP^2) contribute significantly to the prediction of White hostility and intergroup conflict, even with the other contextual variables and the linear component of the Black percentage in the equation?[6]

RESULTS OF THE CONTEXTUAL ANALYSIS

The results of an analysis using the full set of schools are presented first, followed by the results of an analysis within contextual subsets of schools. At the end of this section, a brief discussion provides a summary of the results.

Analysis Using the Full Set of Schools

Tables 5.3 and 5.4 present the results of the simple and partial regressions, both linear and nonlinear, for the 89 Black/White schools. The simple linear regressions (equation 5.1 in Table 5.3) indicate that the Black percentage is linearly and significantly related to Whites' unfriendliness toward Blacks (b_1=.303) and to Whites' attitudes toward contact with Blacks (b_1=.321). The simple nonlinear regressions, in which the quadratic (squared) term was added to the linear term (equation 5.2), indicate that the Black percentage is significantly and nonlinearly related to Whites' attitudes toward desegregation (b_1=4.015 and b_2=-4.214) and to Whites' unfriendliness toward Blacks (b_1=1.552 and b_2=-1.320). As indicated in Table 5.4, the Black percentage is also significantly and nonlinearly related to Intergroup Conflict (b_1=1.834 and b_2=-2.068). For each of these three nonlinear relationships, the signs of the coefficients (positive for the linear term, negative for the quadratic term) indicate that the relationship can be described as an inverted-U, i.e., it first increases as the Black percentage increases and subsequently begins to decrease. As indicated by the R^2's, the Black percentage by itself accounts for little of the variance in any of the Y variables. But the R^2's for the three nonlinear relationships are each significantly higher than the R^2's for the corresponding linear relationships, suggesting that the nonlinear equations do provide a better fit to the data. This is the case even with Unfriendliness, for which the linear term alone (equation 5.1) is also significant.[7] Figures 5.2 to 5.4 depict the simple nonlinear relationship between the Black percentage and each of these three Y variables.

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[6] Kerlinger & Pedhazur (1973) suggest the use of F-tests or t-tests in calculating the statistical significance of linear terms in regression equations. They suggest using F-tests to assess statistical significance (increment in R^2) when quadratic terms are added to such equations. These suggestions are followed here. For equations with only a linear term, t-tests are used. Since previous studies and theoretical expectations clearly suggest a positive direction for the linear relationship between the Black percentage and White hostility, one-tailed tests of significance are used for the three measures of White hostility. Previous research and theory do not clearly suggest a direction for the relationship between the Black percentage and intergroup conflict, so a two-tailed test is used for the single measure of intergroup conflict. For equations with both linear and quadratic terms, F-tests are used to assess the statistical significance of each term. (F-tests do not assume directionality.) Since collinearity between the linear and quadratic terms (r=.959) could obscure the statistical significance of the Black percentage in the nonlinear regressions, F-tests are also used to assess the statistical singificance of the increment in R^2 accounted for by the linear and quadratic terms combined.

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[7] The results of F-tests for the increment in R^2 accounted for by the quadratic term are as follows. For Attitudes toward Desegregation, F=9.00, $p < .005$. For Unfriendliness, F=5.27, $p < .01$. For Intergroup Conflict, F=5.50, $p < .01$. These F-tests should be kept clearly distinct from F-tests for the increment in R^2 accounted for by the linear and quadratic terms combined, which are reported below.

Tables 5.3 and 5.4 also present the results of the partial regressions, which include the Black percentage and the other contextual variables. These regressions were intended to isolate the unique relationship between the Black percentage and each measure of White hostility and intergroup conflict.[8] The results in equations 5.3 and 5.4 (Table 5.3) indicate that Whites' attitudes toward desegregation and attitudes toward contact are less favorable in schools that are lower in SES,[9] schools that are more "Southern," and schools that are more rural. Neither of these attitudinal measures is related to School Size. The third measure of White hostility, Whites' unfriendliness toward Blacks, is not related to any of these additional contextual variables.

The unique relationship between the Black percentage and Whites' attitudes toward desegregation remains significant and, like the simple relationship between these variables, can be described as an inverted-U --as indicated by the linear (b_1=2.925) and the quadratic (b=3.567) terms and by the increment in R^2 accounted for by these terms in combination (F=7.67, $p < .005$). The unique relationship between the Black percentage and Whites' unfriendliness also remains significant and nonlinear in the inverted-U form (b_1=1.284 and b_2=-1.143; for the increment in R^2, $F=4.91$, $p <.01$). The quadratic term is only marginally significant here. But, as indicated by the increment in R^2 accounted for by that term (from $R^2=.086$ to $R^2=.127$; $F=3.73$, $p <.01$), the quadratic term does clarify the form of the relationship between the Black percentage and Unfriendliness. The relationship between the Black percentage and Attitudes toward Contact, which was significant and linear in equation 5.1, becomes non-significant when the other contextual variables are added.

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[8] Since the linear and quadratic terms for the Black percentage both represent a single variable, the combined coefficients for these terms represent the "unique" relationship between the Black percentage and eacy Y variable.

[9] In additional analyses, School SES was disaggregated into Black SES and White SES. Each of these new variables produced essentially the same pattern of results that School SES produced. Because of the multi-collinearity of these SES variables, it was not possible to use them in the same regression equations. (For SES/WSES, r=.836. For SES/BSES, r=.700. For WSES/BSES, r=.414.)

Finally, none of the other contextual variables was a significant predictor of Intergroup Conflict (Table 5.4). But the unique relationship between the Black percentage and Intergroup Conflict, like the saimple relationship between those variables, is significant and non-linear, again the inverted-U form ($b_1=1.834$ and $b_2=-2.068$; for the increment in R^2, $F=5.83$, $p <01$). Figures 5.5 to 5.7 illustrate the three unique relationships between the Black percentage and Whites' attitudes toward desegregation, Whites' unfriendliness, and intergroup conflict. Scatterplots of these relationships appear in Appendix A.

An inspection of these scatterplots indicates that the inverted-U might not be the best description of the relationship between the Black percentage and Whites' attitudes toward desegregation (Figure A.5). The relationship appears to bend twice (at about 30% Black and again at about 50% Black) instead of just once. When the cubed Black percentage was entered into equation 5.4 as an additional predictor, this possibility was confirmed. The variance explained with the addition of the cubic term ($R^2 = .280$) is significantly greater than the variance explained by the linear and quadratic terms alone ($R^2=.241$; $F=4.33$,

$p < .01$). The cubic term did not add significantly to the explained variance for the other two measures of White hostility or for Intergroup Conflict. This matter is discussed further below, after additional findings were presented.[10]

Since scores for the Black students in these schools were also available, another set of regressions examined the relationships between the Black percentage and Blacks' attitudes toward desegregation, unfriendliness toward Whites, and attitudes toward contact with Whites. As indicated in Table 5.5, the Black percentage is significantly and nonlinearly related to Blacks' attitudes toward desegregation (b_1=1.926; b_2=-1.641; for the increment in R^2, F=4.00, $p<.01$). The coefficient for the quadratic term only approaches statistical significance, but it does clarify the form of the relationship between the Black percentage and Blacks' attitudes toward desegregation. (For the increment in R^2 accounted for by the quadratic term, F=2.64, $p < .05$). Specifically, Blacks' attitudes toward desegregation become less favorable as the school approaches 60% Black (or 40% White). Thereafter, Blacks' attitudes become more favorable as the Black percentage further increases.[11] The Black percentage is not significantly related to Blacks' unfriendliness toward Whites or to their attitudes toward contact with Whites. These findings are discussed further below.[12]

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[10] The scatterplot for Unfriendliness (Figure B.6) indicates a reduction in variability above approximately 40% Black. Notably, this measure is based on Blacks' perceptions of Whites' unfriendliness. Thus, a relatively low number of Blacks may have produced unreliable school means for this measure in predominantly White schools. Alternatively, Blacks may have been disinclined to report extreme judgments of Whites' unfriendliness in schools where relatively few Whites were present, i.e., in predominantly Black schools. These interpretations are, of course, speculative. Since this pattern did not appear for any of the other Y variables, it is not considered further here.

[11] The possibility that the cubic term might add to the explained variance for Blacks' attitudes toward desegregation (or for the other two measures of Black hostility) was tested and disconfirmed.

The contextual analysis presented thus far seems to support three claims. First, the inverted-U form of nonlinearity, rather than the J-curve form, has emerged here, for two of the three measures of White hostility and the measure of intergroup conflict. There is an initial increase in White hostility and intergroup conflict as the Black percentage increases and then, at higher Black percentages, there is a decline in these variables. The points at which White hostility is highest are 41% Black for Attitudes toward Desegregation[13] (Figure 5.5) and 57% Black for Unfriendliness (Figure 5.6). The point at which Intergroup Conflict is highest is 44% Black (Figure 5.7). The relationship between the Black percentage and Blacks' attitudes are least favorable in schools near 60% Black (or, from the Black students' point of view, 40% White).

Second, the findings suggest that Whites' attitudes toward contact are less favorable in schools that are lower in SES, more "Southern," and more rural. But the Black percentage is not significantly related to Whites' attitudes toward contact when the other contextual variables are in the equations. Perhaps Whites in schools with a higher Black percentage recognize that it is hard to avoid contact with Blacks and are therefore not more likely to disapprove of friends whom they see in the proximity of Blacks. The fact that the Black percentage is correlated with School SES and South appears to account for the significant bivariate relationship (in equation 5.1) between the Black percentage and Whites' attitudes toward contact.

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[12] One additional set of regressions was used to assess the possibility that racial attitudes or behavior might polarize in schools where the control threat is greater, i.e., that hostility among Whites and/or Blacks might be more uniformly expressed. The simple linear and nonlinear regressions were repeated, using the standard deviation of each measure of White hostility and Black hostility as an indicator of polarization. (A smaller standard deviation signified greater polarization.) These regressions uncovered no significant relationships between the Black percentage and this indicator of polarization, for any measure of White or Black hostility.

[13] When the cubed Black percentage is added to the model, the points at which Whites' attitudes toward desegregation are least favorable are about 5% Black (first bend) and about 50% Black (second bend).

Third, while the nonlinear relationships between the Black percentage and Attitudes toward Desegregation, Unfriendliness, and Intergroup Conflict are statistically significant, they are not strong. In other words, there is not a great deal of fluctuation in either measure of White hostility or in the measure of intergroup conflict, across the full range of the Black percentage.

Analysis for Contextual Subsets of Schools

This chapter now turns to the relationship between the Black percentage and White hostility within contextual subsets of schools. The literature review in Chapter 3 suggested that the relationship between the Black percentage and White hostility may be stronger in schools with a lower aggregate SES (Thomas, 1979), schools in the South (Giles, 1977), schools in the upper South (e.g., Wright, 1977; Knoke & Kyriazis, 1977; Wrinkle & Polincard, 1973), larger schools (Fairchild, 1977), and schools in rural areas (e.g., Wright, 1976; Pettigrew, 1957). Thus, analyses within subsets of schools may identify contexts in which the relationship between the Black percentage and White hostility is stronger. Such analyses may also uncover differences in the location of points at which White hostility peaks.

For these analyses, School SES, School Size, and Ruralism were dichotomized at their means, producing sets of low-SES schools, high-SES schools, small schools, large schools, rural schools, and urban schools. The two other contextual variables, Region and Sub-region, produced sets of Southern schools, non-Southern schools, deep-South schools, and upper-South schools. Tables 5.6 to 5.15 compare the unique relationships between the Black percentage and White hostility and between the Black percentage and intergroup conflict, for each contextual split.[14]

School SES. Table 5.6 indicates that, in the low-SES schools, the Black percentage is nonlinearly related to Attitudes toward Desegregation (b_1=6.651; b_2=-6.674) and to Unfriendliness (b_1=2.252; b_2=-1.991). The points of highest hostility, according to these variables, are 50% Black and 56% Black, respectively. On the other hand, in the high-SES schools (Table 5.7), regression coefficients for the Black percentage do not reach statistical significance for any of the three measures of White hostility or for Intergroup Conflict. Since the degree of multi-collinearity between the linear and quadratic components may (as noted above) obscure the predictive power of the Black percentage, the increment in R^2 associated with the Black percentage (linear and quadratic terms combined) can also be examined. In the low-SES schools, the increment in R^2 associated with the Black percentage is statistically significant for Attitudes toward Desegregation

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[14] In Tables 5.6 to 5.11, all contextual variables were entered into the regressions. In Tables 5.12 and 5.13 (the analysis of Southern vs. non-Southern schools), Sub-region was entered into the regressions for Southern schools. And in Tables 5.14 and 5.15 (the analysis of deep-South vs. upper-South schools), no regional variable was entered into the regressions.

(F=9.04, $p < .005$) and for Unfriendliness (F=17.31, $p < .005$). In the high-SES schools, this increment is not significant for any of the Y variables. In sum, these findings confirm the expectation that the relationship between the Black percentage and White hostility is stronger in low-SES schools than in high-SES schools.

School Size. Table 5.8 indicates that the Black percentage predicts Attitudes toward Desegregation, Unfriendliness, and Intergroup Conflict in large schools.[15] The relationship between the Black percentage and Attitudes toward Desegregation is nonlinear, in the inverted-U form, and attitudes are apparently most hostile in schools near 40% Black. The relationships for Unfriendliness and Intergroup Conflict take the same form, with points of greatest hostility near 50% Black and 39% Black, respectively. Table 5.9 indicates that, in small schools, the Black percentage predicts none of the measures of White hostility or the measure of intergroup conflict, as indicated by the regression coefficients and by the increment in R^2 associated with the Black percentage. Thus, as expected, the Black percentage is more strongly related to White hostility in large schools than in small schools.

Ruralism. Table 5.10, for rural schools, shows significant relationships between the Black percentage and Unfriendliness and between the Black percentage and Intergroup Conflict. Both relationships are nonlinear in the inverted-U form, with points of greatest hostility near 61% Black and 44% Black, respectively. Notably, the linear relationship between the Black percentage and Unfriendliness is also significant. But the contribution of the quadratic term to the R^2 indicates that the nonlinear form fits the data more accurately. (R^2 increases from $R^2=.178$ to $R^2=.239$, $F=5.08$, $p <.01$). The contribution of the Black percentage (the linear and quadratic terms combined) to R^2 is significant both for Unfriendliness ($F=9.67$, $p <.005$) and for Intergroup Conflict ($F=5.87$, $p <.01$). Table 5.11, for urban schools, shows a significant nonlinear relationship between the Black percentage and Attitudes toward Desegregation, with the point of greatest hostility near 40% Black.[16] These findings do not support the prediction that the relationship between the Black percentage and White hostility is stronger in rural schools than in urban schools. One measure of White hostility (Unfriendliness) shows a significant relationship in the rural schools, but another measure of White hostility (Attitudes toward Desegregation) shows a significant relationship in urban schools.[17]

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[15] The regression coefficients are not significant for Intergroup Conflict, but the increment in R^2 is (F=4.60, $p < .05$). This suggests that multi-collinearity between the two components of the Black percentage is obscuring its predictive power.

Region. In Southern schools (Table 5.12), the Black percentage is a significant predictor of Attitudes toward Desegregation and Intergroup Conflict. Both relationships are nonlinear, with points of greatest hostility near 43% Black and 54% Black, respectively. The contribution of the Black percentage (linear plus quadratic terms) to the R^2's is significant both for Attitudes toward Desegregation ($F=12.20$, $p < .005$) and for Intergroup Conflict ($F=7.56$, $p < .005$). In schools outside the South (Table 5.13), the Black percentage (linear term only) predicts Intergroup Conflict, but the relationship is negative, not positive. The addition of the quadratic term suggests that the relationship is better described as nonlinear, in the inverted-U form. The significance level for the quadratic term is marginal, but the R^2 improves considerably (from $R^2=.279$ to $R^2=.359$, $F=3.33$, $p < .05$) when the quadratic term is added. The negative linear relationship is therefore probably due to the fact that the relationship between the Black percentage and Intergroup Conflict is stronger on the "down side" of the curve (schools above 31% Black) than on the "up side" (schools under 31% Black). Despite this uneveness in predicting Intergroup Conflict, the R^2 accounted for by the Black percentage (linear plus quadratic terms) is significant ($F=7.52$, $p < .005$). In summary, the only significant relationship between the Black percentage and White hostility appears in Southern schools (Attitudes toward Desegregation). But the relationship between the Black percentage and Intergroup Conflict is significant in both the South and the non-South. These findings essentially but weakly support the prediction that the relationship between the Black percentage and White hostility is stronger in the South than outside the South.

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[16] The low number of urban schools probably accounts for the relatively high R^2's ($R^2=.792$ for Attitudes toward Desegregation; $R^2=.709$ for Attitudes toward Contact).

[17] In a re-analysis of this contextual split, ruralism was dichotomized at a point which produced a nearly equal number of rural schools and urban schools. This re-analysis uncovered the same pattern of significant relationships.

Sub-region of the South. Finally, Tables 5.14 and 5.15 present a breakdown by Sub-region. In the upper South, there is a hint of the usual nonlinear relationship for Attitudes toward Desegregation, with the point of greatest hostility near 35% Black. The quadratic term is marginally significant, and the increment in R^2 accounted for by the Black percentage (linear plus quadratic terms) is clearly significant ($F=4.55$, $p <.01$). In the deep South, the Black percentage is more strongly related to Attitudes toward Desegregation, in the usual nonlinear form, with the point of greatest hostility near 50% Black. The Black percentage also predicts a considerable degree of the variation in White hostility, as indicated not only by the increment in R^2 ($F=5.27$, $p <.01$) but also by the size of the regression coefficients ($b_1=11.211$; $b_2=-10.707$). There is also a hint of a significant, nonlinear relationship between the Black percentage and Intergroup Conflict, with the point of greatest hostility near 53% Black. Both terms for the Black percentage are marginally significant, and the increment in R^2 is significant ($F=3.78$, $p <.05$). Thus, the expectation of a stronger relationship between the Black percentage and White hostility in the upper South is not borne out. The absence of a more consistent pattern here may be due to the small number of cases in each sub-region. But it appears that the Black percentage is more strongly related to White hostility in the deep South than in the upper South.

Summary of the Contextual Analysis

These results provide support for four conclusions. First, in the regressions involving the full set of schools, several contextual variables appear to be useful predictors of White hostility. As expected, White hostility is higher in schools that are low in SES, more rural, and more "Southern." The Black percentage is also a useful predictor of White hostility, even when the other contextual variables are partialled out of the relationship.

Second, analyses within contextual subsets confirm the expectation that the relationship between the Black percentage and White hostility is stronger in low-SES schools than in high-SES schools and stronger in large schools than in small schools. It was also expected that the relationship between the Black percentage and White hostility would be stronger in the South than outside the South. The relationship between the Black percentage and Whites' attitudes toward desegregation is, in fact, significant in the South but not outside the South. However, since the Black percentage is not significantly related to the other two measures of White hostility in either region, the overall results do not strongly support this conclusion. Regarding the sub-regional breakdown within the South, previous studies (e.g., Wright, 1977) suggested that Whites in the upper South are more sensitive to variation in the Black percentage since Whites in the deep South are heavily exposed to racial norms regardless of the local (community or school) Black percentage. The findings here suggest that the Black percentage is significantly related to Whites' attitudes toward desegregation in both the deep South and the upper South. In fact, since this relationship was stronger in the deep South and since the Black percentage was also related to Intergroup Conflict in the deep South, it appears that Whites in the deep South may actually be a bit more responsive to the Black percentage than Whites in the upper South. Finally, it was expected that the relationship between the

Black percentage and White hostility would be stronger in rural schools than in urban schools. But the breakdown into rural and urban schools produced no apparent differences. The Black percentage was significantly related to Unfriendliness in rural schools but was also significantly related to Attitudes toward Desegregation in the urban schools.[18]

Third, the significant relationships between the Black percentage and these measures of White hostility are nonlinear--generally in the inverted-U form--and White hostility is highest in schools between 40% to 60% Black. Despite two bends in the relationship between the Black percentage and White attitudes toward desegregation (see pp. 222-223), it seems most appropriate to summarize the relationship between the Black percentage and White hostility in general as an inverted-U, for three reasons. First, the two-bend relationship between the Black percentage and White attitudes toward desegregation is not stable. For example, when the cubed Black percentage was added to analyses within contextual subsets, it produced a significant increment in R^2 for three subsets (low-SES, Southern, and upper-South schools). But in three other subsets (urban, large, and deep-South schools), it did not. The inverted-U still provided a better fit to the data. Moreover, when an outlier is removed from the analyses (see footnote 19), the two-bend model fails to add significantly to the explained variance, even in the full set of schools. The inverted-U seems to be the more appropriate model. Second, Attitudes toward Desegregation is the only Y variable for which the cubic term adds significantly to the explained variance, in the full set of schools or in any contextual subset. For Unfriendliness and Intergroup Conflict, the most appropriate model remains the inverted-U. Finally, the most appropriate model for Blacks' attitudes toward desegregation is also the inverted-U. The cubic term does not add significantly to the explained variance for that measure (or for either of the other two measures of Black hostility). Thus, the two bends for Whites' attitudes toward desegregation may simply be a fluke in the data. Even if they represent the true form of the relationship between the Black percentage and Whites' attitudes toward desegregation, the relationship between the Black percentage and White hostility in general appears to follow the inverted-U form.

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[18] One possible explanation for the lack of a clear rural/urban difference in the strength of the relationship between the Black percentage and White hostility is that organizational and ideological supports may enable urban Blacks to express hostility toward Whites more openly than rural Blacks. If so, and if White hostility is partly a reaction to Black hostility, the expected rural/urban difference might not emerge. In fact, Black hostility is apparently unrelated to Ruralism (cf. Table 5.5), so this possibility seems unlikely.

For analyses in any of these subsets, it is possible that some other contextual or control-relevant variable is confounding the results. For example, low-SES schools may have a higher mean Black percentage than high-SES schools, or there may be more variability in the Black percentage in large schools than in small schools. To check for possible confounds, the means and ranges for all contextual and control-relevant variables were examined within each subset of schools. This effort uncovered two possible confounds. First, a greater percentage of low-SES schools than high-SES schools are in the deep South (36% to 12%, respectively). Second, the mean Black percentage is greater in the low-SES schools (45%) than in the high-SES schools (32%). Since these differences are not large and since the Black-percentage ranges are quite similar (9% to 90% in the low-SES schools; 3% to 81% in the high-SES schools), the findings within SES contexts are probably not seriously compromised. In any case, the low number of schools in most contextual subsets precludes a rigorous examination of the possible effects of such confounds. Table B.1 in Appendix B reports the means and ranges for all contextual and control-relevant variables within each subset of schools.

Finally, the nonlinear relationships between the Black percentage and White hostility are generally stronger in certain contextual subsets than in the full set of schools. That is, fluctuation in the Y variables (as indicated by the size of the unstandardized regression coefficients) is greater across the Black-percentage range. This difference is most striking in the deep South, where the fluctuation in Attitudes toward Desegregation is quite substantial (b_1=11.211; b_2=-10.707). Figure 5.8 depicts the relationship between the Black percentage and Attitudes toward Desegregation in the deep-South schools.[19]

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[19] An examination of scatterplots for Attitudes toward Desegregation, Unfriendliness, and Intergroup Conflict reveals the presence of three outlier schools. One of these is a 95% Black school at which Whites' attitudes toward desegregation are very favorable (school mean=4.0). At another 99% Black school, Intergroup Conflict is very low (school mean=1.0). Finally, at a third outlier school (which is 4% Black), Unfriendliness is very low (school mean=2.0). In additional analyses, these schools were eliminated from the appropriate regressions (e.g., the 95% Black school was eliminated from regressions using Attitudes toward Desegregation as the Y variable). Table 5.16 reports which relationships are significant when the outliers are left in the analysis and which relationships are significant when the outliers are removed. The pattern of results is essentially the same in each case, except that (1) relationships between the Black percentage and Attitudes toward Contact become significant in urban schools and in deep-South schools when the outliers are removed, and (2) relationships between the Black percentage and Unfriendliness lose significance in the full set of schools and in large schools when the outliers are removed. Regarding Attitudes toward Contact, it seems unwise to draw any firm conclusions from the emergence of significant relationships in only two contextual subsets. But it does seem possible that some peculiarities in the data for this variable may have obscured the actual existence of a relationship between the Black percentage and Attitudes toward Contact. Regarding Unfriendliness, it should be reiterated here that the estimate of reliability for Unfriendliness was relatively low. Thus, it is not particularly surprising that the results for this variable are unstable. In any case, the removal of outliers apparently has no substantial effect on the findings.

CONTROL-RELEVANT ANALYSIS

This analysis determines how the relationship between the Black percentage and White hostility is affected by three other control-relevant variables: Staff Racial Composition, Black Busing, and Classroom Resegregation.[20] According to research cited in Chapter 2, White control is stronger in schools with a smaller proportion of Blacks on the staff, schools to which a larger proportion of the Black enrollment is bused, and schools in which classrooms are more segregated. Thus, the relationship between the Black percentage and White hostility ought to be weaker in such schools (i.e., points ought to be more scattered around the regression line) because White control, on the basis of these other variables, is still relatively strong. For the same reason, the inverted-U form of nonlinearity (if it emerges here) should peak at a higher Black percentage in such schools.

This analysis (1) reports correlations among the control-relevant variables, (2) reports the relationship between each control-relevant variable and White hostility, and (3) examines the relationship between the Black percentage and White hostility in schools where these control-relevant variables indicate strong White control and in schools where these variables indicate weak White control. The analytical techniques used here are the same as those used in the contextual analysis.

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[20] In accord with Blalock's assumption that resources are additive (cf. Chapter 2, pp. 49-51), this research treats the Black percentage as a measure of Black students' resources (and, conversely, treats the White percentage as a measure of White students' resources). The other control-relevant variables are taken as variables which may upset the correspondence between resources and racial proportions.

CORRELATIONS AMONG CONTROL-RELEVANT VARIABLES

None of the correlations between control-relevant variables is statistically significant (Table 5.17). Of course, there is no a priori reason to expect these variables to be correlated, except as a result of school-district policy. But the absence of association among the variables does limit the ways in which they can be used in this analysis. Since they are uncorrelated, it seems inappropriate to create a composite scale from the control-relevant variables. Moreover, it seems pointless to examine the relationship between the Black percentage and White hostility in schools where White control is strong or weak on all three control-relevant variables, since there are very few schools in either category.[21] This analysis therefore examines the relationship between the Black percentage and White hostility in schools where the control-relevant variables, taken one at a time, indicate strong or weak White control.

RELATIONSHIPS BETWEEN CONTROL-RELEVANT VARIABLES AND WHITE HOSTILITY

The use of these variables as control-relevant variables presupposes that the relationship between any of the variables and White hostility is similar to the relationship between the Black percentage (also a control-relevant variable) and White hostility. As White control weakens, White hostility should increase. The simple regression analyses reported in Table 5.18 indicate that Whites hold significantly less favorable attitudes toward desegregation and toward contact with

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[21] There are sixteen schools for which all three variables indicate weak White control and two schools for which all three variables indicate strong White control.

Blacks in schools with a higher proportion of Blacks on the staff. The results also indicate that Whites are more unfriendly toward Blacks and have less favorable attitudes toward contact in schools where fewer of the Blacks are bused. These relationships are consistent with the expectation that White hostility is higher in schools where White control, as indicated by other control-relevant variables, is weak. However, there is a high correlation between the student Black percentage and Staff Racial Composition in these schools (r=.719). The significant regression coefficients for Staff Racial Composition could be due to this high correlation. Under controls for the student Black percentage, the coefficients for Staff Racial Composition do in fact become nonsignificant, though the trend in the relationship between Staff Racial Composition and Attitudes toward Desegregation is still apparent (b=.594, p=.17). Perhaps because the variability in Classroom Resegregation is relatively low (cf. Chapter 4, p. 196), Classroom Resegregation is not significantly related to any of these measures of White hostility.[22]

On the whole, these results support the conceptualization of Black Busing as a control-relevant variable but do not support the conceptualization of Staff Racial Composition and Classroom Resegregation as control-relevant variables. All three variables were retained for the control-relevant analysis, though, for two reasons. First, previous research supports the conceptualization of all three variables as control-relevant, so it seems premature to drop any of them from the analysis at this point. Second, although these variables may not be directly related to White hostility, they may still be related to White hostility through interaction with the Black percentage. The control-relevant analysis explores this possibility.

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[22] There were no other significant correlations between contextual and control-relevant variables, so the only apparent confound here is the confound of Staff Racial Composition with the student Black percentage.

RESULTS OF THE CONTROL-RELEVANT ANALYSIS

The three control-relevant variables were dichotomized at their means,[23] so that each school in the sample fell into a "strong-control" category or a "weak-control" category for each control-relevant variable.

Staff Racial Composition. According to the research cited in Chapter 2, White control is weaker in schools with a higher proportion of Blacks on the staff. Consequently, one would expect Whites to be more sensitive to the Black percentage in such schools. That is, the relationship between the Black percentage and White hostility should be stronger, and White hostility should peak at a lower Black percentage, in schools where the proportion of Blacks on the staff is high. The findings indicate that in schools with a lower proportion of Blacks on the staff (Table 5.19), only the nonlinear relationship between the Black percentage and Unfriendliness is significant. (Since the increment in R^2 accounted for by the linear and quadratic terms is significant ($F=3.96$, $p <.01$), the nonsignificance of the regression coefficients is probably due to multi-collinearity between the linear and quadratic terms.) But in schools with a high proportion of Blacks on the staff (Table 5.20), the Black percentage is significantly related to Attitudes toward Desegregation, Unfriendliness, and Intergroup Conflict. (Multi-collinearity appears to be operating to some extent for all three of these relationships. The coefficients are marginally significant at best, but each increment in R^2 is clearly significant.) These findings confirm the expectation of stronger relationships in weak-control schools. On the other hand, Unfriendliness peaked at 38% in schools with a low proportion of Blacks on the staff and at 62% in schools with a high proportion of Blacks on the staff. This difference runs contrary to the expected difference in "peak points", but multi-collinearity between the linear and quadratic terms casts doubt on the meaningfulness of the coefficients for Unfriendliness in both sets of schools. Thus, one cannot place a great deal of confidence in the specification of these "peak points."

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[23] The mean for Staff Racial Composition is 27.8%; for Black Busing, 31.9%; and for Classroom Resegregation, 12.7%.

Black Busing. It was assumed here that White control is weaker in schools where a lower proportion of the Black enrollment is bused to the school for the purpose of desegregation. Accordingly, the predictions are that the relationship between the Black percentage and White hostility will be stronger, and that White hostility will peak at a lower Black percentage, in schools where fewer of the Blacks are bused. The first prediction is confirmed. In schools where fewer of the Blacks are bused (Table 5.21), the Black percentage is significantly related to Attitudes toward Desegregation and to Intergroup Conflict. On the other hand, the Black percentage is not related to any of the Y variables where Black Busing is high (Table 5.22).[24] It was therefore not possible to compare "peak points" for nonlinear relationships in high-busing (strong-control) and low-busing (weak-control) schools.[25]

Classroom Resegregation. Under the assumption that White control is weaker in schools where classes are less segregated, it was predicted that the relationship between the Black percentage and White hostility will be stronger, and that White hostility will peak at a lower Black percentage, in such schools. Again, this first prediction is confirmed by significant relationships for Attitudes toward Desegregation, Unfriendliness, and Intergroup Conflict in the low-resegregation schools (Table 5.23). None of the relationships is significant for schools where resegregation is high (Table 5.24). So, again, it was not possible to test the second prediction, i.e., to compare "peak points" for nonlinear relationships in high-resegregation (strong-control) and low-resegregation (weak-control) schools.

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[24] Additional analyses were conducted with two other measures of Black Busing. One analysis simply used the percentage of Blacks bused to the school for any purpose, rather than the percentage bused for desegregation, as a measure of Black Busing. Another analysis constructed a measure of Black Busing by subtracting the percentage of Whites bused for desegregation from the percentage of Blacks bused for desegregation. The thinking here was that even though Blacks usually bear most of the busing burden in school desegregation, there may be some schools to which both races are heavily bused and in which both races therefore have a hard time establishing control. Both of these analyses produced findings that are virtually identical to the findings for the percentage of Blacks bused for desegregation.

[25] Possibly, the relationship between the Black percentage and Intergroup Conflict is significant in the low-busing schools (i.e., the weak-control schools) because Blacks at such schools are more likely to be on the grounds before and after classes are in session. That is, there may simply be more opportunity for intergroup conflict in low-busing schools, rather than a greater control threat to Whites. However, the possibility of greater opportunity for conflict is not necessarily inconsistent with the control-threat interpretation. One could argue that Whites in the low-busing schools are more threatened by the Black percentage and have more opportunity to act on their hostility.

It would also have been interesting to examine the impact of Black Busing on the relationship between the Black percentage and White hostility in schools where busing has just recently begun. Control may be a particularly salient issue for students in such schools even if the overall Black percentage is low or if the percentage of Blacks who are bused is high. However, without longitudinal data or some indication of when busing first began at such schools, these possibilities cannot be explored.

In summary, the first prediction derived from the control-threat concept has been supported in this analysis. It appears that Whites are more sensitive to variation in the Black percentage when the proportion of Blacks on the school staff is high, when a lower proportion of the Black enrollment is bused to the school, and classes are less segregated.[26] Evidence regarding the second control-relevant prediction is inconclusive. It was predicted that White hostility would peak at a lower Black percentage in schools where White control is weak. The relationship between the Black percentage and Unfriendliness is significant in schools where the proportion of Blacks on the staff is high (i.e., in weak-control schools), and White hostility peaks at 62% Black. The Black percentage is also significantly related to Unfriendliness in schools where the proportion of Blacks on the staff is low (i.e., in strong-control schools), and White hostility peaks at 38% Black. This difference in the location of "peak points" runs counter to the predicted difference. However, since no other relationships are significant in strong-control schools, this comparison of "peak points" for Unfriendliness is the only available evidence regarding this second prediction. The fact that the coefficients for the Black percentage are not significant in either subset of schools[27] renders even this one comparison unpersuasive.[28]

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[26] As in the contextual analysis, other contextual or control-relevant variables could be confounding the results. For example, schools to which proportionately more Blacks are bused may have a higher mean Black percentage, or schools where resegregation is high may have a restricted SES range. To check for possible confounds, the means and ranges for all contextual and control-relevant variables were examined within each control-relevant subset of schools. This effort uncovered three possible confounds. Schools with a high proportion of Blacks on the staff have a higher mean Black percentage than schools with a low proportion of Blacks on the staff (51% and 28%, respectively). Schools which are high on Staff Racial Composition are also more likely to be in the South than schools which are low on that variable (72% and 40%, respectively). Finally, schools at which Black Busing is low are more likely to be in the South than schools at which Black Busing is high (71% and 42%, respectively). Unfortunately, the low number of schools in the control-relevant subsets precludes a full examination of the possible effect of these confounds, e.g., by comparing relationships between the Black percentage and White hostility across subsets of non-South schools. Table B.2 in Appendix B reports the means and ranges for all contextual and control-relevant variables in each subset of schools.

SUMMARY OF CONTEXTUAL AND CONTROL-RELEVANT ANALYSES

First, the contextual analysis indicated that the Black percentage is uniquely related to White hostility even when the other contextual variables are held constant. This relationship appeared to be stronger in certain contextual subsets of schools, viz., low-SES schools, large schools, Southern schools, and deep-South schools.

Second, the control-relevant analysis indicated that the relationship between the Black percentage and White hostility is stronger in schools where White control, as indicated by each of three control-relevant variables, is relatively weak. The analysis provided no persuasive evidence regarding the location of "peak points" for White hostility in strong-control and weak-control schools.

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[27] As noted above, the attribution of significance was based on the increment in R^2 accounted for the Black percentage (linear and quadratic terms combined).

[28] In additional analyses, three outliers (cf. footnote 19) were removed from the appropriate regressions. Table 5.25 reports which relationships are significant when the outliers are left in the analyses and which relationships are significant when the outliers are removed. For Black Busing and Staff Racial Composition, the results are identical in either case. For Classroom Resegregation, only the relationship for Unfriendliness is significant when the outliers are removed from the low-resegregation (weak-control) schools. However, no relationship is significant in the high-resegregation (strong-control) schools, so even the findings for Classroom Resegregation are still consistent with the control-threat predictions.

Finally, in both of these analyses the relationship between the Black percentage and White hostility was generally nonlinear in the inverted-U form, and White hostility was greatest in schools between 40% to 60% Black. A substantive interpretation for these findings is offered in Chapter 6, along with a discussion of their implications for policy and for future research.

TABLE 5.1

CORRELATION MATRIX FOR CONTEXTUAL VARIABLES

	School SES	Region[b]	Sub-region[c]	Ruralism	School Size
Black Percentage	-.464*** (n=89)	.130 (n=89)	.327* (n=52)	-.078 (n=87)	.047 (n=89)
School SES		-.224* (n=89)	-.412*** (n=52)	.103 (n=87)	-.095 (n=89)
Region[b]			a	.126 (n=87)	.130 (n=89)
Sub-region[c]				.002 (n=51)	.067 (n=52)
Ruralism					.012 (n=87)

*p <.05
***p <.005

[a] correlation not computed
[b] Non-South=0 South=1
[c] Upper South=0 Deep South=1

TABLE 5.2

CORRELATIONS BETWEEN THREE MEASURES OF WHITE HOSTILITY AND ONE MEASURE OF INTERGROUP CONFLICT

	Attitudes toward Desegregation	Unfriendliness toward Blacks	Attitudes toward Contact with Blacks
Unfriendliness toward Blacks	.044 (n=86)		
Attitudes toward Contact with Blacks	.468*** (n=88)	-.002 (n=86)	
Intergroup Conflict	.146 (n=82)	-.072 (n=81)	-.045 (n=82)

***p <.005

Note: Box includes the three measures of White hostility. The two attitudinal measures are based on White students' self-reports. The Unfriendliness measure is based on Black students' perceptions of White behavior.

TABLE 5.3
REGRESSION ANALYSES FOR FULL SET OF SCHOOLS: MEASURES OF WHITE HOSTILITY

ATTITUDES TOWARD DESEGREGATION

Equation	5.1 b	5.2 b	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.221	6.019***	-.318	-.106	2.925*	.763
Squared Black Percentage	a	-4.214***	a	a	-3.567***	-.887
School SES	a	a	-.069*	-.235	-.069	-.219
South^c	a	a	.205*	.234	.174	.204
School Size	a	a	-.002	-.050	-.0001	-.025
Ruralism	a	a	-.000006**	-.255	-.000008**	-.236
Overall R^2	.004	.096*	.177***		.241***	
N	86	86	86		86	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d	d	d		F=7.67***	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.1 b	5.2 b	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.303*	1.952**	.196	.128	1.284*	.837
Squared Black Percentage	a	-1.320*	a	a	-1.143	-.736
School SES	a	a	-.013	-.096	-.013	-.095
South^c	a	a	.038	.103	.031	.083
School Size	a	a	-.0003	-.155	-.0002	-.112
Ruralism	a	a	-.000001	-.087	-.0000009	-.075
Overall R^2	.039*	.097**	.086		.127	
N	87	87	86		86	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d	d	d		F=4.91**	

ATTITUDES TOWARD CONTACT

Equation	5.1 b	5.2 b	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.321*	.204	-.027	-.015	-.562	-.362
Squared Black Percentage	a	.130	a	a	.594	.355
School SES	a	a	-.039**	-.252	-.045**	.258
South^c	a	a	.149***	.353	.154***	.365
School Size	a	a	-.001	-.050	-.0001	-.060
Ruralism	a	a	-.000002*	-.186	-.000002*	-.193
Overall R^2	.031	.032	.266***		.287***	
N	86	86	86		86	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d	d	d		F=2.44	

*p<.05 ^{a}variable not in equation

**p<.01 ^{c}Non-South=0 Upper South=1 Deep South=2

***p<.005 ^{d}F-test not computed

$^{\#}$p<.1 b=unstandardized coefficients

β=standardized coefficients

TABLE 5.4
REGRESSION ANALYSES FOR FULL SET OF SCHOOLS: INTERGROUP CONFLICT

Equation	5.1	5.2	5.3	5.3	5.4	5.4
	b	b	b	β	b	β
Black Percentage	-.163	1.618**	-.082	-.027	1.834**	.980
Squared Black Percentage	a	-1.904**	a		-2.068	-1.056
School SES	a	a	-.006	-.064	-.007	-.017
South[c]	a	a	-.063	-.143	-.071	-.165
School Size	a	a	-.00003	-.010	..00007	.046
Ruralism	a	a	-.000001	.110	.000002	.131
Overall R^2	.008	.074*	.043		.116	
N	81	81	81		81	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d	d	d		F=5.83**	

*$p<.05$ [a] variable not in equation

**$p<.01$ [c] Non-South=0 Upper South=1 Deep South=2

***$p<.005$ [d] F-test not computed

#$p<.1$ b=unstandardized coefficients

β=standardized coefficients

TABLE 5.5
REGRESSION ANALYSES FOR FULL SET OF SCHOOLS: MEASURES OF BLACK HOSTILITY

	ATTITUDES TOWARD DESEGREGATION				UNFRIENDLINESS TOWARD WHITES				ATTITUDES TOWARD CONTACT			
Equation	5.3	5.3	5.4	5.4	5.3	5.3	5.4	5.4	5.3	5.3	5.4	5.4
	b	β	b	β	b	β	b	β	b	β	b	β
Black Percentage	.364	.138	1.928*	.734	.141	.156	-.178	-.197	.251	.146	.509	.296
Squared Black Percentage	a		-1.641$^{\#}$	-.617	a		.349	.361	a		-.271	-.156
School SES	.0004	.002	..0007	.003	-.004	-.045	-.004	-.052	-.036*	-.237	-.036*	-.236
South^{c}	-.048	-.075	-.058	-.092	.009	.042	.011	.054	.073	.175	.071	.170
School Size	-.0002	-.084	-.0001	-.045	-.00005	-.057	-.00006	-.067	.0002	.120	.0002	.129
Ruralism	-.000002	-.118	-.00002	-.108	-.0000002	-.043	-.000003	-.050	-.000001	-.093	-.000001	-.090
Overall R^2	.047		.076		.044		.054		.219***		.221***	
N	87		87		86		86		87		87	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=4.00**		d		F=1.58		d		F=1.70	

*$p<.05$ ^{a}variable not in equation

**$p<.01$ ^{c}Non-South=0 Upper South=1 Deep South=2

***$p<.005$ ^{d}F-test not computed

$^{\#}p<.1$ b=unstandardized coefficients

β=standardized coefficients

TABLE 5.6
REGRESSION ANALYSES FOR LOW-SES SCHOOLS

ATTITUDES TOWARD DESEGREGATION

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.095	.023	6.661***	1.936
Squared Black Percentage	a		-6.674***	-2.044
School SES	.074	.133	-.036	-.062
South^c	.170	.233	.078	.106
School Size	.0001	.031	.00003	.009
Ruralism	-.00002**	-.399	-.00001*	-.237
Overall R^2	.150		.366**	
N	42		42	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=9.04***	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.232	.230	2.252***	2.234
Squared Black Percentage	a		-1.[illegible]91***	-2.201
School SES	-.019	-.120	-.0[illegible]3*	-.397
South^c	.029	.123	.003	.012
School Size	.0001	.128	.0002	.171
Ruralism	-.000001	-.107	-.00000002	[illegible]01
Overall R^2	.163		.400***	
N	43		43	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=17.31***	

ATTITUDES TOWARD CONTACT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.017	.010	-.276	-.153
Squared Black Percentage	a		.299	.175
School SES	-.062	-.212	-.057	-.196
South^c	.177***	.460	.181***	.471
School Size	-.00006	-.038	-.00006	-.036
Ruralism	-.000006	-.206	-.000006	.219
Overall R^2	.315**		.317†	
N	42		42	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=0.01	

INTERGROUP CONFLICT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.161	-.075	1.725	.805
Squared Black Percentage	a		-1.978	-.959
School SES	.075	.237	.040	.125
South^c	-.056	-.127	-.071	-.161
School Size	.00005	.027	.0001	.065
Ruralism	.0000002	.007	.000001	.037
Overall R^2	.113		.167	
N	41		41	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=2.36	

*p<.05 ^{a}variable not in equation

**p<.01 ^{c}Non-South=0 Upper South=1 Deep South=2

***p<.005 ^{d}F-test not computed

†p<.1 b=unstandardized coefficients

β=standardized coefficients

TABLE 5.7
REGRESSION ANALYSES FOR HIGH-SES SCHOOLS

ATTITUDES TOWARD DESEGREGATION

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.760	-.183	-2.085	-.502
Squared Black Percentage	^{a}		1.654	.322
School SES	-.149**	-.332	-.160**	-.358
South^c	.388***	.392	.400***	.404
School Size	-.0004	-.099	-.0005	-.113
Ruralism	-.000005*	-.280	-.000005*	-.278
Overall R^2	.323**		.331**	
N	44		44	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	^{d}		F=2.11	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.002	-.001	1.166	.510
Squared Black Percentage	^{a}		-1.458	-.515
School SES	-.048	-.196	-.038	-.155
South^c	.069	.126	.059	.108
School Size	-.0009**	-.363	-.0008*	-.340
Ruralism	-.000001	-.132	-.000001	-.136
Overall R^2	.214		.233	
N	44		44	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	^{d}		F=0.90	

ATTITUDES TOWARD CONTACT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.025	-.012	-1.528	-.760
Squared Black Percentage	^{a}		1.875	.754
School SES	-.064*	-.293	-.077*	-.353
South^c	.119*	.247	.132*	.275
School Size	-.00007	-.034	-.0001	-.066
Ruralism	-.000002	-.222	-.000002	-.218
Overall R^2	.200		.241	
N	44		44	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	^{d}		F=1.95	

INTERGROUP CONFLICT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.213	.137	.784	.506
Squared Black Percentage	^{a}		-.680	-.373
School SES	.001	.005	-.003	-.013
South^c	-.028	-.083	-.031	-.092
School Size	.00003	.018	.00006	.033
Ruralism	.000002	.238	.000002	.240
Overall R^2	.065		.072	
N	40		40	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	^{d}		F=0.86	

*p<.05 ^{a}variable not in equation

**p<.01 ^{c}Non-South=0 Upper South=1 Deep South=2

***p<.005 ^{d}F-test not computed

$^{\#}$p<.1 b=unstandardized coefficients

β=standardized coefficients

TABLE 5.8
REGRESSION ANALYSES FOR LARGE SCHOOLS

ATTITUDES TOWARD DESEGREGATION

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-1.100	-.346	3.914[f]	1.229
Squared Black Percentage	a		-4.905**	-1.547
School SES	-.137*	-.490	-.110*	-.393
South[c]	.025	.029	-.020	-.023
School Size	-.0006	-.133	-.0001	-.027
Ruralism	-.00001*	-.382	-.000009	-.244
Overall R^2	.278		.431 **	
N	31		31	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=9.54***	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-.246	-.141	2.045[f]	1.176
Squared Black Percentage	a		-2.085*	-1.299
School SES	-.101**	-.636	-.091**	-.574
South[c]	-.019	-.038	-.025	-.048
School Size	-.0008	-.312	-.0004	-.156
Ruralism	-.000003	-.134	-.000001	-.051
Overall R^2	.385 *		.452 **	
N	32		32	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=5.00*	

ATTITUDES TOWARD CONTACT

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	.057	.036	-.703	-.450
Squared Black Percentage	a		.743	.478
School SES	-.050*	-.366	-.054*	-.396
South[c]	.152*	.362	.159*	.378
School Size	-.0002	-.074	-.0002	-.106
Ruralism	-.000008**	-.465	-.000009**	-.508
Overall R^2	.452 ***		.467 ***	
N	31		31	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=0.73	

INTERGROUP CONFLICT

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	.462	.296	1.305	.837
Squared Black Percentage	a		-1.679	-1.167
School SES	.034	.227	.032	.214
South[c]	.090	.217	.085	.205
School Size	-.0003	-.128	-.00009	-.039
Ruralism	-.0000006	-.036	.0000002	.011
Overall R^2	.222		.291	
N	30		30	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=4.60*	

*p<.05	[a] variable not in equation
**p<.01	[c] Non-South=0 Upper South=1 Deep South=2
***p<.005	[d] F-test not computed
[f] p<.1	b=unstandardized coefficients
	β=standardized coefficients

TABLE 5.9
REGRESSION ANALYSES FOR SMALL SCHOOLS

ATTITUDES TOWARD DESEGREGATION

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	.124	.032	1.264	[illegible]
Squared Black Percentage	a		-1.329	-.299
School SES	-.046	-.139	-.045	-.137
South^c	.312***	.359	.303***	.349
School Size	.0006	.075	.0007	.086
Ruralism	-.000005*	-.239	-.000005*	-.242
Overall R^2	.232$^\theta$		.239$^\theta$	
N	55		55	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=0.90	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	.297	.218	.669	.490
Squared Black Percentage	a		-.434	-.281
School SES	.036*	.311	.036*	.313
South^c	.051	.169	.048	.160
School Size	.00005	.017	.00008	.028
Ruralism	-.000002	-.196	-.000002	-.199
Overall R^2	.121		.126	
N	55		55	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=2.44	

ATTITUDES TOWARD CONTACT

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-.122	-.061	-1.236	-.622
Squared Black Percentage	a		1.299	.578
School SES	-.040*	-.239	-.041*	-.244
South^c	.142*	.324	.151***	.343
School Size	-.0008	-.173	-.0008	-.196
Ruralism	-.000001	-.099	-.000001	-.092
Overall R^2	.253**		.276**	
N	55		55	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=1.63	

INTERGROUP CONFLICT

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	.355	.159	1.257	.595
Squared Black Percentage	a		-1.125	-.448
School SES	-.011	-.062	-.014	-.080
South^c	-.135**	-.337	-.137**	-.341
School Size	.00008	.021	.0002	.039
Ruralism	.000002	.175	.000002	.174
Overall R^2	.134		.143	
N	51		51	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=1.45	

*$p<.05$	[a] variable not in equation
**$p<.01$	[c] Non-South=0 Upper South=1 Deep South=2
***$p<.005$	[d] F-test not computed
$^{\theta}p<.1$	b=unstandardized coefficients
	β=standardized coefficients

TABLE 5.10
REGRESSION ANALYSES FOR RURAL SCHOOLS

ATTITUDES TOWARD DESEGREGATION

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.044	-.012	.441	.123
Squared Black Percentage	a		-.551	-.130
School SES	-.037	-.122	-.025	-.118
South^{c}	.365***	.439	.357***	.430
School Size	-.0005	-.136	-.0005	-.132
Ruralism	-.00007***	-.316	-.00007***	-.315
Overall R^2	.293 ***		.294 ***	
N	68		68	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=0.08	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.399*	.265	1.711***	1.134
Squared Black Percentage	a		-1.411**	-.902
School SES	-.012	-.093	-.012	-.091
South^{c}	.060	.162	.041	.111
School Size	-.0004	-.215	-.0002	-.142
Ruralism	-.000002	-.017	-.000001	-.033
Overall R^2	.178 *		.239**	
N	69		69	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=9.67***	

ATTITUDES TOWARD CONTACT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.112	-.062	-.401	-.223
Squared Black Percentage	a		.328	.163
School SES	-.012	-.078	-.013	-.083
South^{c}	.215***	.512	.219***	.523
School Size	-.0002	-.106	-.0002	-.112
Ruralism	-.00003*	-.231	-.00003*	-.232
Overall R^2	.289 **		.291 ***	
N	68		68	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=0.42	

INTERGROUP CONFLICT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.117	-.061	1.985*	1.041
Squared Black Percentage	a		-2.265**	-1.166
School SES	-.002	-.009	-.012	-.069
South^{c}	-.097	-.228	-.115*	-.270
School Size	.00006	.030	.0002	.106
Ruralism	.000007	.063	.000008	.072
Overall R^2	.054		.139	
N	65		65	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=5.87**	

*p<.05 ^{a}variable not in equation
**p<.01 ^{c}Non-South=0 Upper South=1 Deep South=2
***p<.005 ^{d}F-test not computed
#p<.1 b=unstandardized coefficients
β=standardized coefficients

TABLE 5.11
REGRESSION ANALYSES FOR URBAN SCHOOLS

ATTITUDES TOWARD DESEGREGATION

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-1.074	-.404	6.890***	2.591
Squared Black Percentage	a		-8.659***	-3.480
School SES	-.041	-.153	-.167	-.620
South^c	.075	.119	.166	.264
School Size	.0004	.159	.00007	.024
Ruralism	-.000001	-.129	-.0000005	-.048
Overall R^2	.132		.792***	
N	18		18	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=38.06***	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-.736	-.489	-1.887	-1.254
Squared Black Percentage	a		1.252	.889
School SES	-.047	-.312	-.029	-.190
South^c	-.007	-.019	-.020	-.056
School Size	-.0004	-.249	-.0003	-.215
Ruralism	-.000004**	-.596	-.000004**	-.616
Overall R^2	.429		.472	
N	18		18	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=2.79	

ATTITUDES TOWARD CONTACT

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-.115	-.070	-.362	-.222
Squared Black Percentage	a		.269	.176
School SES	-.152***	-.935	-.148***	-.911
South^c	.059	.152	.056	.145
School Size	-.0006	-.368	-.0006	-.361
Ruralism	-.0000003	-.041	-.0000003	-.045
Overall R^2	.708 ***		.709 **	
N	18		18	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=0.15	

INTERGROUP CONFLICT

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	.386	.338	-1.117	-.979
Squared Black Percentage	a		1.813	1.364
School SES	.032	.312	.037	.369
South^c	.010	.055	-.002	-.009
School Size	.0004	.046	.000002	.003
Ruralism	.0000004	.135	.0000001	.042
Overall R^2	.137		.218	
N	16		16	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=1.77	

*p<.05 [a]variable not in equation
**p<.01 [c]Non-South=0 Upper South=1 Deep South=2
***p<.005 [d]F-test not computed
#p<.1 b=unstandardized coefficients
β=standardized coefficients

TABLE 5.12
REGRESSION ANALYSES FOR SOUTHERN SCHOOLS

ATTITUDES TOWARD DESEGREGATION

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.654	-.154	5.985***	1.412
Squared Black Percentage	[a]		-6.983***	-1.633
School SES	-.038	-.104	-.067	-.182
Sub-region[c]	.354	.239	.299	.203
School Size	-.0006	-.129	-.0006	-.128
Ruralism	-.000006*	-.272	.000004	-.184
Overall R^2	.171		.338**	
N	50		50	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	[d]		F=12.20***	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.156	.116	.501	.372
Squared Black Percentage	[a]		-.344	-.273
School SES	.007	.061	.005	.042
Sub-region[c]	.040	.078	.037	.072
School Size	-.00003	.018	-.00001	-.008
Ruralism	-.000002	-.223	-.000002	-.211
Overall R^2	.069		.073	
N	51		51	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	[d]		F=0.67	

ATTITUDES TOWARD CONTACT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.144	.084	.091	.053
Squared Black Percentage	[a]		.056	.033
School SES	-.038*	-.257	-.038*	-.256
Sub-region[c]	.105	.176	.105	.176
School Size	-.001	-.058	-.001	-.058
Ruralism	-.000002*	-.241	-.000002*	-.243
Overall R^2	.247**		.247*	
N	50		50	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	[d]		F=0.35	

INTERGROUP CONFLICT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.289	-.146	2.785***	1.411
Squared Black Percentage	[a]		-2.564***	-1.345
School SES	.026	.152	.009	.053
Sub-region[c]	-.252**	-.368	-.275**	-.401
School Size	.0002	.080	..0003	.164
Ruralism	.000001	.112	.000002	.167
Overall R^2	.200		.304**	
N	49		49	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	[d]		F=7.56***	

*$p<.05$ [a] variable not in equation
**$p<.01$ [c] Non-South=0 Upper South=1 Deep South=2
***$p<.005$ [d] F-test not computed
#$p<.1$ b=unstandardized coefficients
β=standardized coefficients

TABLE 5.13
REGRESSION ANALYSES FOR NON-SOUTH SCHOOLS

ATTITUDES TOWARD DESEGREGATION

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-.128	-.048	.239	.090
Squared Black Percentage	a		-.415	-.137
School SES	-.092*	-.381	-.088*	-.388
South^c	a		a	
School Size	.0003	.119	.0004	.127
Ruralism	-.00002*	-.337	-.00002*	-.347
Overall R^2	.276*		.277	
N	36		36	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=0.08	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	.181	.104	1.497	.889
Squared Black Percentage	a		-1.487	-.751
School SES	-.039	-.251	-.028	-.180
South^c	a		a	
School Size	-.0006	-.294	-.0005	-.247
Ruralism	.000008	.234	.000006	.179
Overall R^2	.229		.265	
N	36		36	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=1.71	

ATTITUDES TOWARD CONTACT

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-.233	-.137	-1.459	-.859
Squared Black Percentage	a		1.306	.718
School SES	-.046	-.303	-.057*	-.371
South^c	a		a	
School Size	-.0001	-.076	-.0002	-.121
Ruralism	-.000006	-.167	-.000004	-.114
Overall R^2	.104		.138	
N	36		36	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=1.62	

INTERGROUP CONFLICT

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-.561*	-.349	1.724	1.072
Squared Black Percentage	a		-2.775#	-1.458
School SES	-.053	-.345	-.048	-.312
South^c	a		a	
School Size	-.0007**	-.436	-.0006*	-.399
Ruralism	.000003	.118	.0000007	.027
Overall R^2	.279		.359#	
N	32		32	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=7.52***	

*$p<.05$ [a]variable not in equation
**$p<.01$ [c]Non-South=0 Upper South=1 Deep South=2
***$p<.005$ [d]F-test not computed
#$p<.1$ b=unstandardized coefficients
β=standardized coefficients

TABLE 5.14
REGRESSION ANALYSES FOR UPPER-SOUTH SCHOOLS

ATTITUDES TOWARD DESEGREGATION

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.596	-.167	3.289	.921
Squared Black Percentage	a		-4.706†	-1.126
School SES	-.138*	-.410	-.135*	-.404
South^c	a		a	
School Size	-.0003	-.099	-.0003	-.093
Ruralism	-.000003	-.255	-.000003	-.228
Overall R^2	.280		.377*	
N	29		29	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=4.55**	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.201	.105	.176	.093
Squared Black Percentage	a		.030	.013
School SES	.027	.152	.017	.152
South^c	a		a	
School Size	-.0002	-.115	-.0002	-.115
Ruralism	-.000002	-.233	-.000002	-.234
Overall R^2	.086		.086	
N	29		29	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=0.25	

ATTITUDES TOWARD CONTACT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.096	-.054	.744	.416
Squared Black Percentage	a		-1.018	-.486
School SES	-.023	-.135	-.022	-.132
South^c	a		a	
School Size	-.0001	-.076	-.0001	-.074
Ruralism	-.000002	-.257	-.000002	-.245
Overall R^2	.100		.118	
N	29		29	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=0.55	

INTERGROUP CONFLICT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.653	.313	2.085	.998
Squared Black Percentage	a		-1.690	-.709
School SES	-.022	-.111	-.0[illegible]	-.132
South^c	a		a	
School Size	.00009	.048	.0001	.075
Ruralism	.000001	.162	.000001	.186
Overall R^2	.119		.154	
N	28		28	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=1.42	

*p<.05	[a]variable not in equation
**p<.01	[c]Non-South=0 Upper South=1 Deep South=2
***p<.005	[d]F-test not computed
†p<.1	b=unstandardized coefficients
	β=standardized coefficients

TABLE 5.15
REGRESSION ANALYSES FOR DEEP-SOUTH SCHOOLS

ATTITUDES TOWARD DESEGREGATION

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.030	-.006	11.211*	2.306
Squared Black Percentage	a		-10.707*	-2.449
School SES	.088	.203	.015	.035
South^{c}	a		a	
School Size	-.0004	-.083	-.0006	-.121
Ruralism	-.00002*	-.483	-.00001	-.284
Overall R^2	.247		.442	
N	21		21	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=5.27**	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.082	.083	1.362	1.388
Squared Black Percentage	a		-1.145	-1.392
School SES	-.003	-.027	-.011	-.119
South^{c}	a		a	
School Size	.00007	.067	.0001	.108
Ruralism	-.000002	-.216	-.000002	-.147
Overall R^2	.071		.135	
N	22		22	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=1.28	

ATTITUDES TOWARD CONTACT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.479	.295	-.091	-.055
Squared Black Percentage	a		..542	.371
School SES	-.033	-.230	-.030	-.205
South^{c}	a		a	
School Size	-.0001	-.075	-.0001	-.069
Ruralism	-.000007*	-.447	-.000007*	-.477
Overall R^2	.412		..416	
N	21		21	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=1.87	

INTERGROUP CONFLICT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.033	.019	3.231#	1.877
Squared Black Percentage	a		-2.563#	-1.975
School SES	.059	.381	.041	.269
South^{c}	a		a	
School Size	.0005	.329	.0007*	.421
Ruralism	.000002	.165	..000004	..236
Overall R^2	.230		.385	
N	21		21	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=3.78*	

*$p<.05$ [a] variable not in equation

**$p<.01$ [c] Non-South=0 Upper South=1 Deep South=2

***$p<.005$ [d] F-test not computed

#$p<.1$ b=unstandardized coefficients

β=standardized coefficients

TABLE 5.16
SIGNIFICANT RELATIONSHIPS BETWEEN THE BLACK PERCENTAGE AND WHITE HOSTILITY OR INTERGROUP CONFLICT, WITH OUTLIERS LEFT IN AND WITH OUTLIERS REMOVED

	Attitudes toward Desegregation		Unfriendliness toward Blacks		Attitudes toward Contact		Intergroup Conflict	
Equation	5.3	5.4	5.3	5.4	5.3	5.4	5.3	5.4
ALL SCHOOLS		X,Y		X				X
HIGH-SES SCHOOLS								
LOW-SES SCHOOLS		X,Y		X,Y				
SMALL SCHOOLS								
LARGE SCHOOLS		X,Y		X				X
RURAL SCHOOLS			Y	X				X,Y
URBAN SCHOOLS		X,Y				Y		
SOUTHERN SCHOOLS		X,Y						X,Y
NON-SOUTH SCHOOLS								X,Y
UPPER-SOUTH SCHOOLS		X,Y						
DEEP-SOUTH SCHOOLS		X				Y		X,Y

X=significant relationship with outliers left in

Y=significant relationship with outliers removed

TABLE 5.17
CORRELATION MATRIX FOR CONTROL-RELEVANT VARIABLES

	Classroom Resegregation	Black Busing
Staff Racial Composition	.142 (n=89)	.030 (n=89)
Classroom Resegregation		.148 (n=89)

TABLE 5.18
UNSTANDARDIZED COEFFICIENTS FOR SIMPLE REGRESSION OF WHITE HOSTILITY ON EACH CONTROL-RELEVANT VARIABLE

	Attitudes toward Desegregation	Unfriendliness toward Blacks	Attitudes toward Contact
Classroom Resegregation	-.109 (n=86)	.439 (n=87)	-.539 (n=86)
Staff Racial Composition	.760* (n=86)	.145 (n=87)	.357* (n=86)
Black Busing	-.031 (n=86)	-.256*** (n=87)	-.164* (n=86)

*p<.05, one-tailed
***p<.005, one-tailed

TABLE 5.19
REGRESSION ANALYSES FOR STAFF RACIAL COMPOSITION (LOW)
(WHITE CONTROL = STRONG)

ATTITUDES TOWARD DESEGREGATION

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-.224	-.052	3.684	1.088
Squared Black Percentage	a		-4.092	-1.174
School SES	-.084*	-.223	-.050	-.189
South[c]	.236*	.379	.224*	.348
School Size	.0003	.100	.0003	.095
Ruralism	-.000004	.221	-.000004	-.243
Overall R^2	.320**		.360**	
N	42		42	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=2.47	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	.530	.224	3.609	1.220
Squared Black Percentage	a		-4.800	-1.026
School SES	-.019	-.112	.007	.144
South[c]	.029	.071	.020	.044
School Size	-.0003	-.348	-.0002	-.344
Ruralism	-.0000007	-.173	-.000001	-.192
Overall R^2	.100		.158	
N	42		42	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=3.96**	

ATTITUDES TOWARD CONTACT

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-.481	-.114	-.260	-.288
Squared Black Percentage	a		-.345	-.415
School SES	-.038	-.230	-.036	-.217
South[c]	.145*	.434	.144*	.423
School Size	.00008	.037	.00008	.035
Ruralism	-.000001	-.103	-.000001	-.110
Overall R^2	.260*		.260	
N	42		42	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=1.71	

INTERGROUP CONFLICT

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	.103	.046	1.781	.796
Squared Black Percentage	a		-2.465	-.773
School SES	.015	.097	-.012	-.074
South[c]	.122*	.355	.129*	.376
School Size	.0002	.136	.0002	.132
Ruralism	.000002	.213	.000001	.199
Overall R^2	.166		.191	
N	38		38	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=1.08	

*p<.05	[a] variable not in equation
**p<.01	[c] Non-South=0 Upper South=1 Deep South=2
***p<.005	[d] F-test not computed
#p<.1	b=unstandardized coefficients
	β=standardized coefficients

TABLE 5.20
REGRESSION ANALYSES FOR STAFF RACIAL COMPOSITION (HIGH)
(WHITE CONTROL = WEAK)

ATTITUDES TOWARD DESEGREGATION

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.858	-.063	3.337	.075
Squared Black Percentage	a		-3.867	-.011
School SES	-.081	-.237	-.081	-.237
South[c]	.247	.283	-.247	-.283
School Size	-.0009	-.201	-.0009	-.201
Ruralism	-.00001	-.308	-.00001	-.308
Overall R^2	.208		.254	
N	44		44	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=3.85**	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.179	.153	1.618*	2.193
Squared Black Percentage	a		-1.283[f]	-2.037
School SES	-.006	-.006	-.006	-.018
South[c]	.063	.234	.057	.189
School Size	-.0002	-.145	-.0001	-.109
Ruralism	-.000002	-.148	-.000002	-.093
Overall R^2	.109		.184	
N	45		45	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=4.38**	

ATTITUDES TOWARD CONTACT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.130	.062	.939	.564
Squared Black Percentage	a		-.904	-.626
School SES	-.031	-.146	-.032	-.121
South[c]	.213*	.519	.221*	.505
School Size	-.0004	-.224	-.0005	-.213
Ruralism	-.000009*	-.493	-.00001*	-.476
Overall R^2	.369***		.383***	
N	44		44	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=1.06	

INTERGROUP CONFLICT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.217	-.007	2.167	.732
Squared Black Percentage	a		-2.244[f]	-.738
School SES	.018	.073	.021	.104
South[c]	-.014	-.014	-.017	-.030
School Size	-.0003	-.054	-.0001	-.041
Ruralism	-.000002	-.046	-.000002	-.066
Overall R^2	.077		.143	
N	43		43	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=3.22*	

*$p<.05$	[a] variable not in equation
**$p<.01$	[c] Non-South=0 Upper South=1 Deep South=2
***$p<.005$	[d] F-test not computed
[f] $p<.1$	b=unstandardized coefficients
	β=standardized coefficients

TABLE 5.21
REGRESSION ANALYSES FOR BLACK BUSING (LOW)
(WHITE CONTROL = WEAK)

ATTITUDES TOWARD DESEGREGATION

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.634	.048	3.299[f]	.333
Squared Black Percentage	a		-4.081*	-.292
School SES	-.066	-.232	-.070	-.242
South[c]	.288*	.367	.272*	.368
School Size	-.0004	-.085	-.0004	-.087
Ruralism	-.000006	.180	-.000005	-.173
Overall R^2	.218*		.293**	
N	51		51	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=5.88***	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.007	-.032	.089	.641
Squared Black Percentage	a		-.094	-.626
School SES	.011	.032	.011	.031
South[c]	.031	.119	.031	.121
School Size	.0001	.145	.0001	.140
Ruralism	-.000002*	-.300	-.000002*	-.295
Overall R^2	.123		.123	
N	52		52	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=0.00	

ATTITUDES TOWARD CONTACT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.110	.056	-.558	-.123
Squared Black Percentage	a		.693	.247
School SES	-.039	-.215	-.038	-.224
South[c]	.159*	.377	.162*	.378
School Size	-.0001	-.092	-.0001	-.094
Ruralism	-.000001	-.201	-.000002	-.195
Overall R^2	.336***		.346***	
N	51		51	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=0.87	

INTERGROUP CONFLICT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.144	-.083	2.542*	1.137
Squared Black Percentage	a		-2.008*	-1.081
School SES	.017	.056	.003	.018
South[c]	-.079	-.179	-.075	-.176
School Size	-.00004	-.070	.001	.060
Ruralism	.0000006	.095	.000001	.122
Overall R^2	.081		.200	
N	49		49	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=6.53***	

*$p<.05$ [a]variable not in equation
**$p<.01$ [c]Non-South=0 Upper South=1 Deep South=2
***$p<.005$ [d]F-test not computed
[f]$p<.1$ b=unstandardized coefficients
β=standardized coefficients

TABLE 5.22
REGRESSION ANALYSES FOR BLACK BUSING (HIG
(WHITE CONTROL = STRONG)

ATTITUDES TOWARD DESEGREGATION

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.214	.035	3.310	.990
Squared Black Percentage	^{a}		-3.569	-.977
School SES	-.050	-.135	-.048	-.130
South^{c}	.160	.234	.126	.184
School Size	.0002	.058	.0004	.104
Ruralism	-.00002*	-.423	-.00002*	-.422
Overall R^2	.242		.295	
N	35		35	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	^{d}		F=2.38	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.310	.287	1.926	2.036
Squared Black Percentage	^{a}		-1.864	-1.788
School SES	.011	.079	.013	.088
South^{c}	-.030	-.113	-.054	-.204
School Size	-.00004	-.025	-.00009	-.058
Ruralism	.000003	.168	.000003	.170
Overall R^2	.313^{f}		.348^{f}	
N	35		35	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	^{d}		F=2.45	

ATTITUDES TOWARD CONTACT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.079	-.019	-.236	-.384
Squared Black Percentage	^{a}		.181	.371
School SES	-.023	-.118	-.023	-.116
South^{c}	.186*	.508	.179*	.486
School Size	-.0003	-.132	.0002	.114
Ruralism	-.000008*	-.392	-.000008*	-.391
Overall R^2	.219		.219	
N	35		35	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	^{d}		F=0.77	

INTERGROUP CONFLICT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.077	-.052	-.595	-.400
Squared Black Percentage	^{a}		.578	.355
School SES	-.011	-.062	-.011	-.063
South^{c}	-.054	-.168	.048	.150
School Size	-.00002	-.009	.00005	.025
Ruralism	.000005	.283	.000005	.283
Overall R^2	.072		.078	
N	32		32	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	^{d}		F=0.23	

*p<.05 ^{a}variable not in equation
**p<.01 ^{c}Non-South=0 Upper South=1 Deep South=2
***p<.005 ^{d}F-test not computed
^{f}p<.1 b=unstandardized coefficients
β=standardized coefficients

TABLE 5.23
REGRESSION ANALYSES FOR CLASSROOM RESEGREGATION (LOW)
(WHITE CONTROL = WEAK)

ATTITUDES TOWARD DESEGREGATION

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-.665	-.034	3.750*	.011
Squared Black Percentage	a		-4.529*	-.047
School SES	-.006	-.017	-.005	-.015
South^c	.223	.307	.225	.312
School Size	.0001	.039	.0001	.043
Ruralism	-.000001	-.261	-.000001	-.259
Overall R^2	.133		.308	
N	36		36	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=8.61***	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	.249	.384	1.857$^{\#}$	2.223
Squared Black Percentage	a		-1.571$^{\#}$	-1.899
School SES	.029	.191	.013	.089
South^c	.081	.267	.025	.085
School Size	.0005*	.412	.0003	.254
Ruralism	.000003	.149	..000001	.078
Overall R^2	.178		.255	
N	37		37	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=3.75*	

ATTITUDES TOWARD CONTACT

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	.356	.105	-.429	-.605
Squared Black Percentage	a		.817	.733
School SES	-.058	-.310	-.050	-.271
South^c	.125	.331	.151	.401
School Size	-.0005	-.333	-.0004	-.272
Ruralism	-.000005	-.229	-.000004	-.201
Overall R^2	.437***		.461***	
N	36		36	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=2.16	

INTERGROUP CONFLICT

Equation	5.3	5.3	5.4	5.4
	b	β	b	β
Black Percentage	-.066	-.283	2.209**	.425
Squared Black Percentage	a		-2.486***	-.147
School SES	-.007	-.048	-.009	-.055
South^c	-.041	-.132	-.046	-.145
School Size	.00005	.038	.00003	.026
Ruralism	-.000002	-.110	-.000002	-.107
Overall R^2	.098		.296	
N	32		32	
Signif. test for increment in R^2 accounted for by the BS (linear plus quadratic)	d		F=7.37***	

*p<.05	^{a}variable not in equation
**p<.01	^{c}Non-South=0 Upper South=1 Deep South=2
***p<.005	^{d}F-test not computed
$^{\#}$p<.1	b=unstandardized coefficients
	β=standardized coefficients

TABLE 5.24
REGRESSION ANALYSES FOR CLASSROOM RESEGREGATION (HIC
(WHITE CONTROL = STRONG)

ATTITUDES TOWARD DESEGREGATION

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.584	.140	7.660^{f}	2.511
Squared Black Percentage	a		-7.116^{f}	-2.576
School SES	-.116*	-.346	-.118*	.231
South^{c}	.238*	.293	.231*	.283
School Size	-.0004	-.091	-.0003	-.063
Ruralism	-.000004	-.181	-.000001	-.124
Overall R^2	.317***		.336**	
N	50		50	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=0.93	

UNFRIENDLINESS TOWARD BLACKS

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	.045	.031	.928	.358
Squared Black Percentage	a		.889	.347
School SES	-.0007	-.019	-.0005	-.021
South^{c}	-.002	-.006	-.0005	-.005
School Size	-.00003	-.013	-.00004	-.011
Ruralism	-.000002	-.267	-.000002	-.263
Overall R^2	.078		.080	
N	50		50	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=0.14	

ATTITUDES TOWARD CONTACT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.185	-.298	3.614^{f}	.413
Squared Black Percentage	a		-3.821^{f}	-.772
School SES	-.042	-.247	-.046*	-.268
South^{c}	.150*	.390	.148*	.377
School Size	.0001	.061	.0001	.109
Ruralism	-.000002	-.185	-.000002	-.114
Overall R^2	.259**		.264*	
N	50		50	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=1.29	

INTERGROUP CONFLICT

Equation	5.3 b	5.3 β	5.4 b	5.4 β
Black Percentage	-.197	-.122	3.086	1.096
Squared Black Percentage	a		-3.301	-1.292
School SES	.003	.018	.002	.009
South^{c}	-.068	-.164	-.070	-.169
School Size	.0002	.105	.0003	.125
Ruralism	.000001	.132	.000001	.161
Overall R^2	.064		.065	
N	49		49	
Signif. test for increment in R^2 accounted for by the B% (linear plus quadratic)	d		F=0.64	

*$p<.05$	^{a}variable not in equation
**$p<.01$	^{c}Non-South=0 Upper South=1 Deep South=2
***$p<.005$	^{d}F-test not computed
$^{f}p<.1$	b=unstandardized coefficients
	β=standardized coefficients

TABLE 5.25
SIGNIFICANT RELATIONSHIPS BETWEEN THE BLACK PERCENTAGE AND WHITE HOSTILITY OR INTERGROUP CONFLICT, WITH OUTLIERS LEFT IN AND WITH OUTLIERS REMOVED

	Attitudes toward Desegregation		Unfriendliness toward Blacks		Attitudes toward Contact		Intergroup Conflict	
Equation	5.3	5.4	5.3	5.4	5.3	5.4	5.3	5.4
LOW BUSING		X,Y						X,Y
HIGH BUSING								
LOW STAFF RACIAL COMPOSITION				X,Y				
HIGH STAFF RACIAL COMPOSITION		X,Y		X,Y				X,Y
LOW CLASSROOM RESEGREGATION		X		X,Y				X
HIGH CLASSROOM RESEGREGATION								

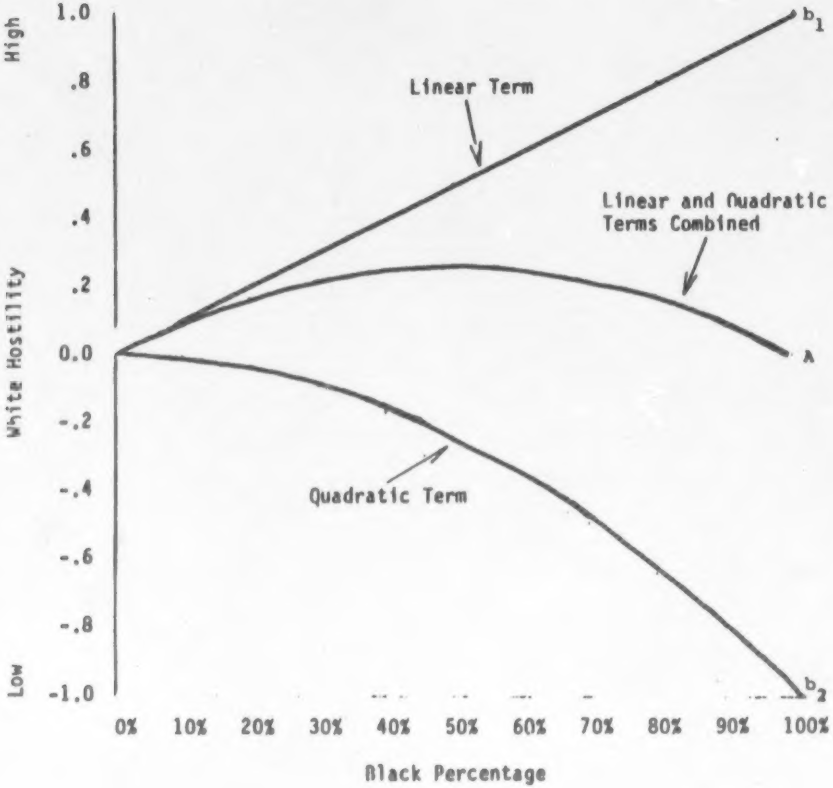

FIGURE 5.1
HYPOTHETICAL RELATIONSHIP BETWEEN THE
BLACK PERCENTAGE AND WHITE HOSTILITY

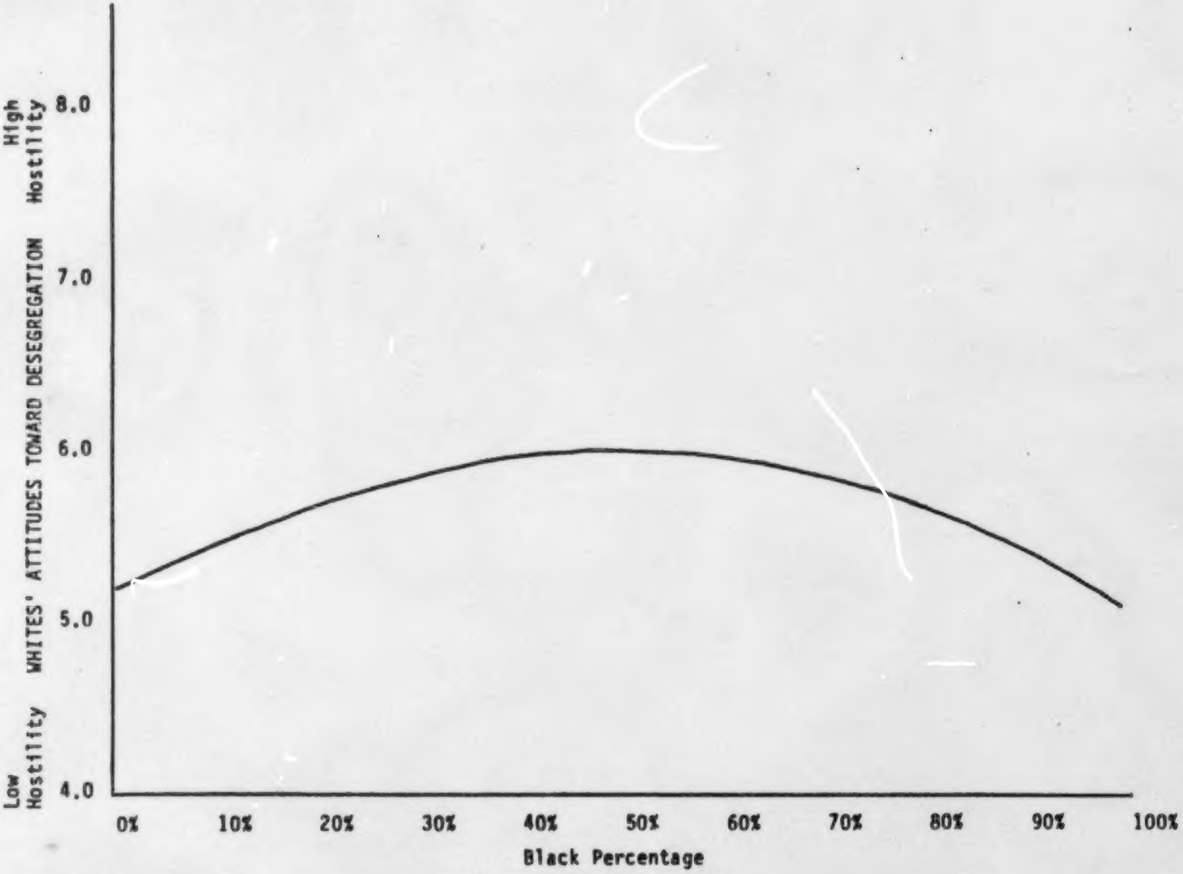

FIGURE 5.2: SIMPLE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITES' ATTITUDES TOWARD DESEGREGATION

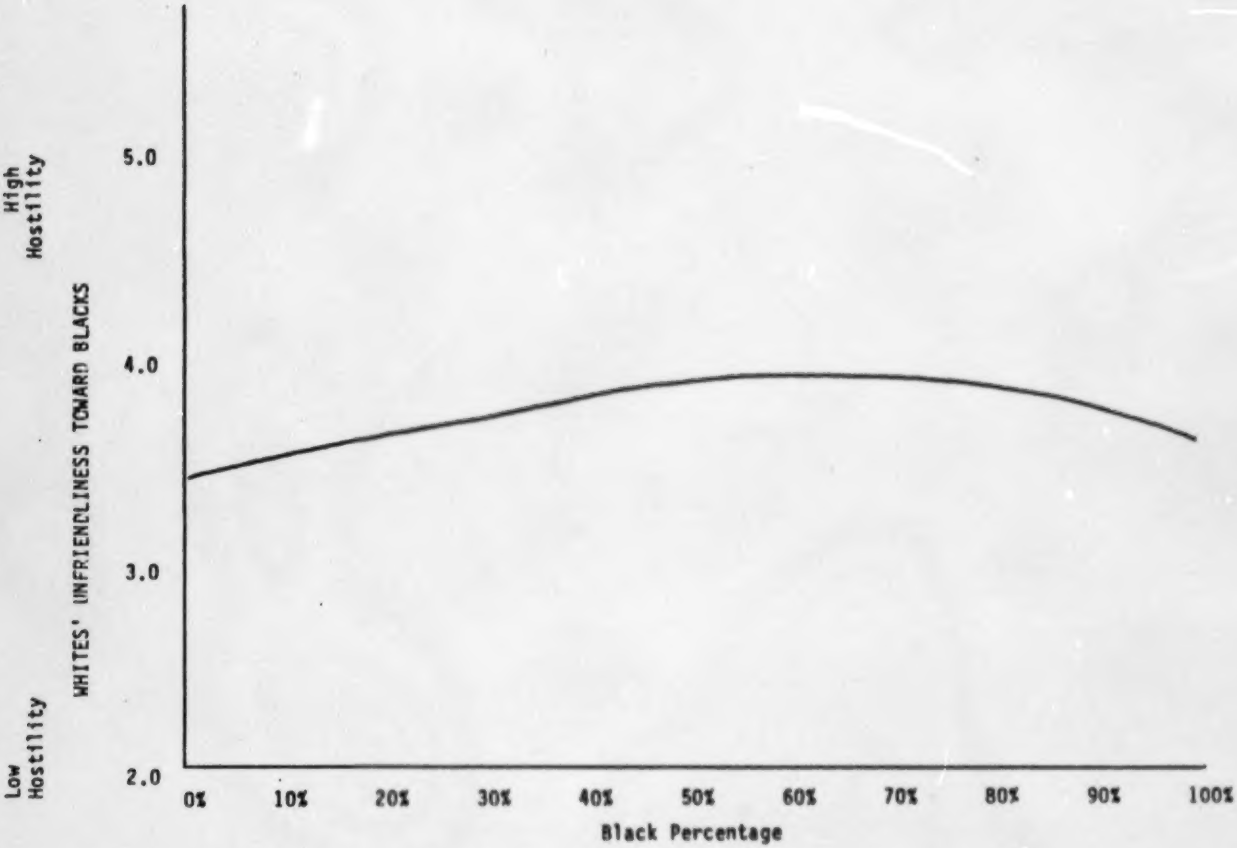

FIGURE 5.3: SIMPLE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITES' UNFRIENDLINESS TOWARD BLACKS

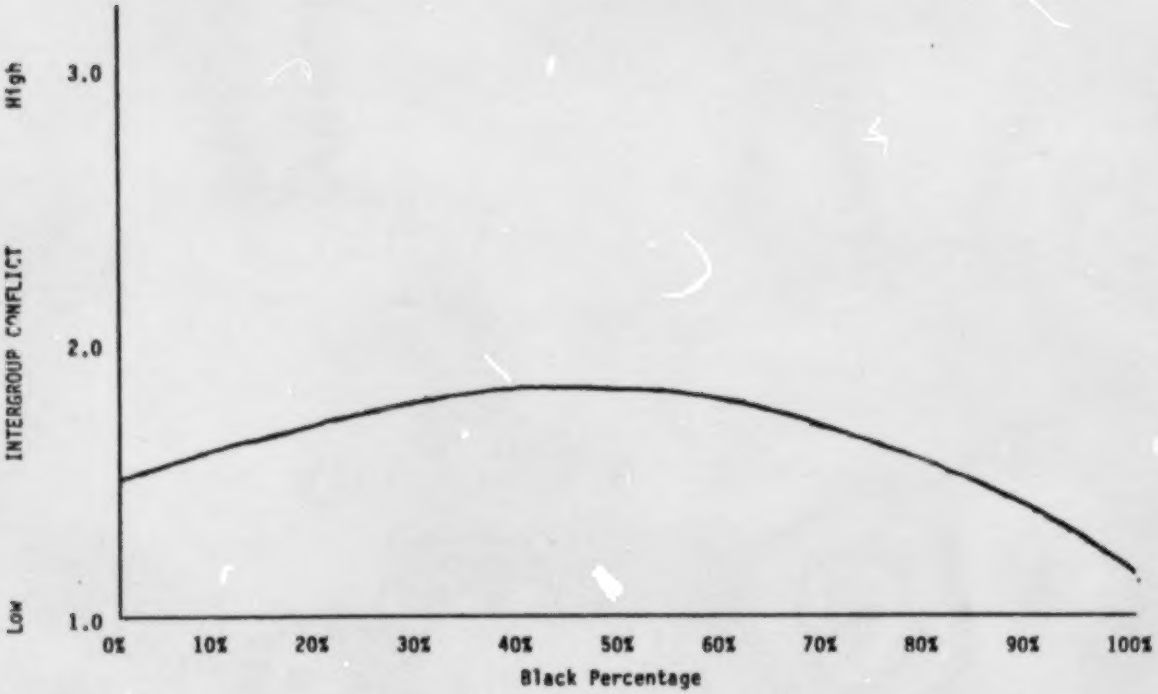

FIGURE 5.4: SIMPLE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND INTERGROUP CONFLICT

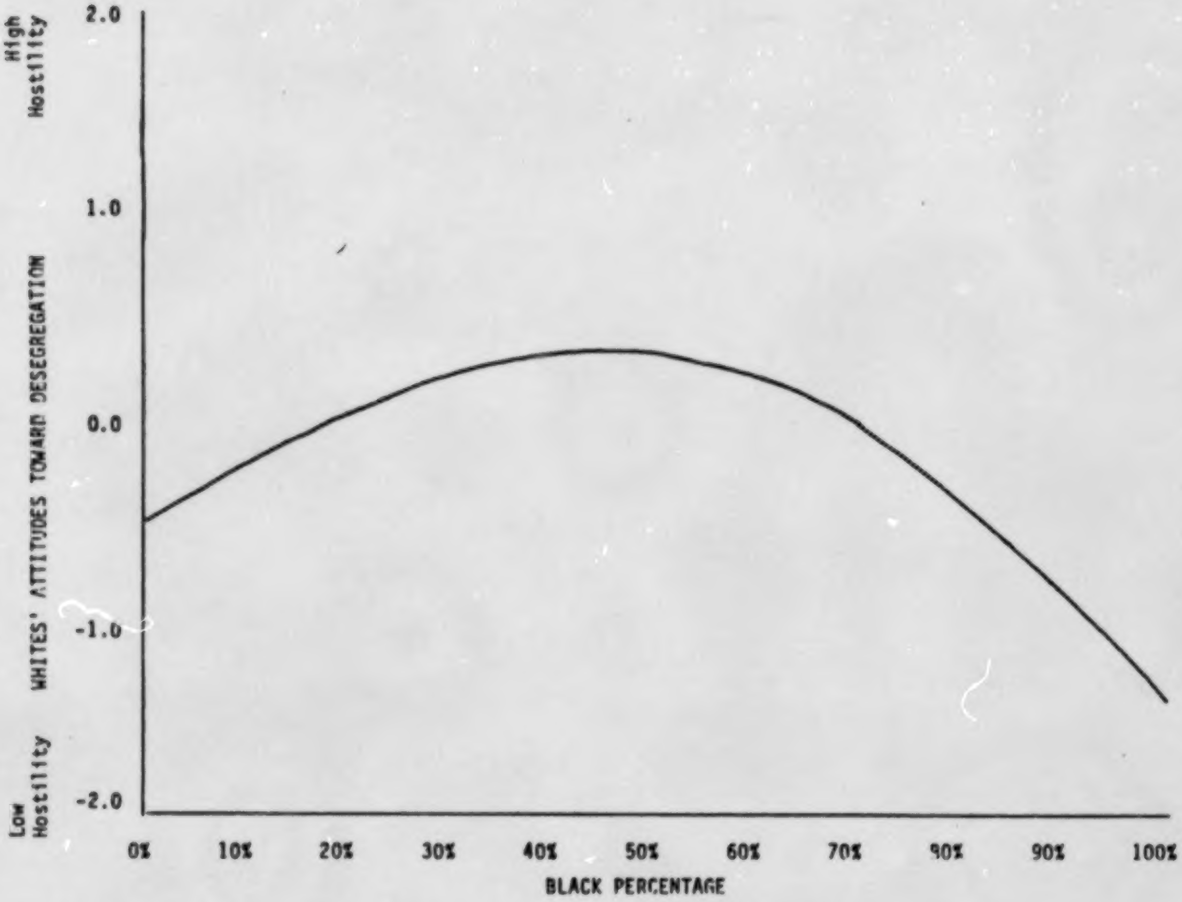

FIGURE 5.5: UNIQUE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITES' ATTITUDES TOWARD DESEGREGATION

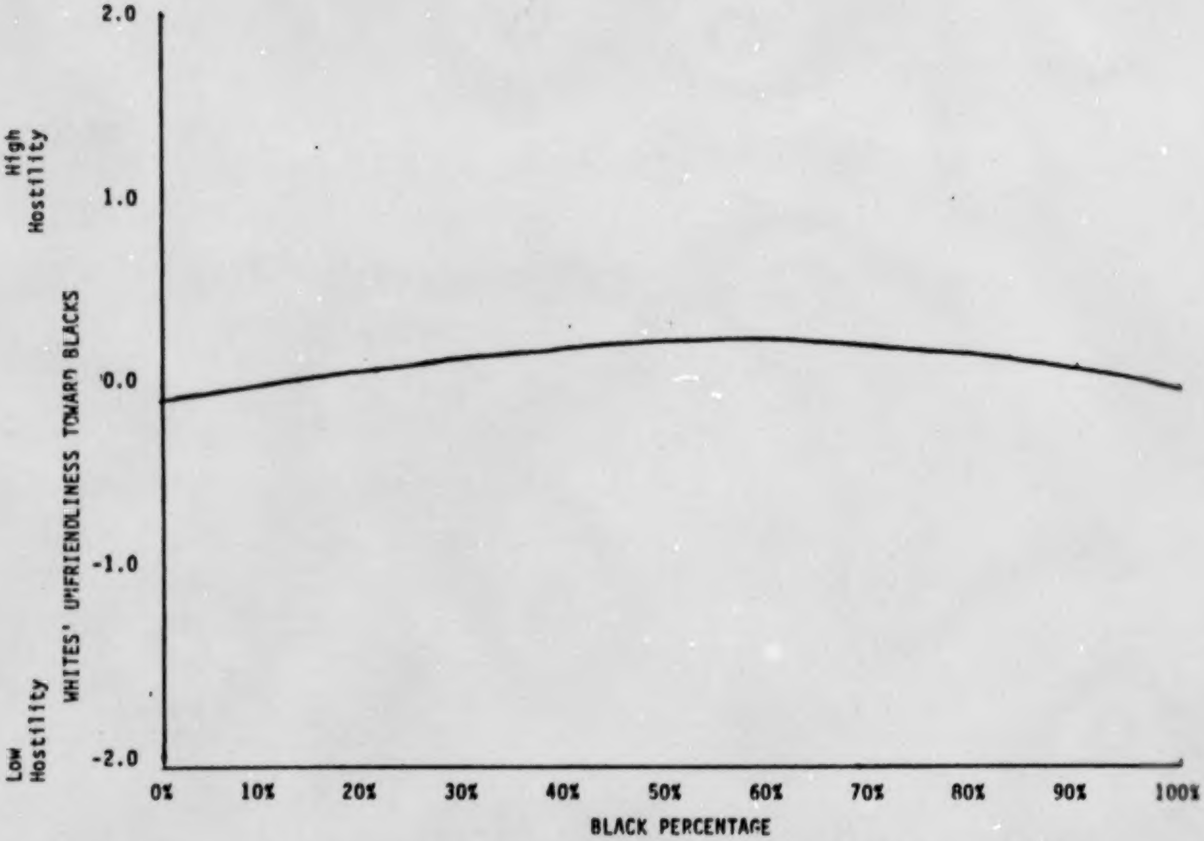

FIGURE 5.6: UNIQUE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITES' UNFRIENDLINESS TOWARD BLACKS

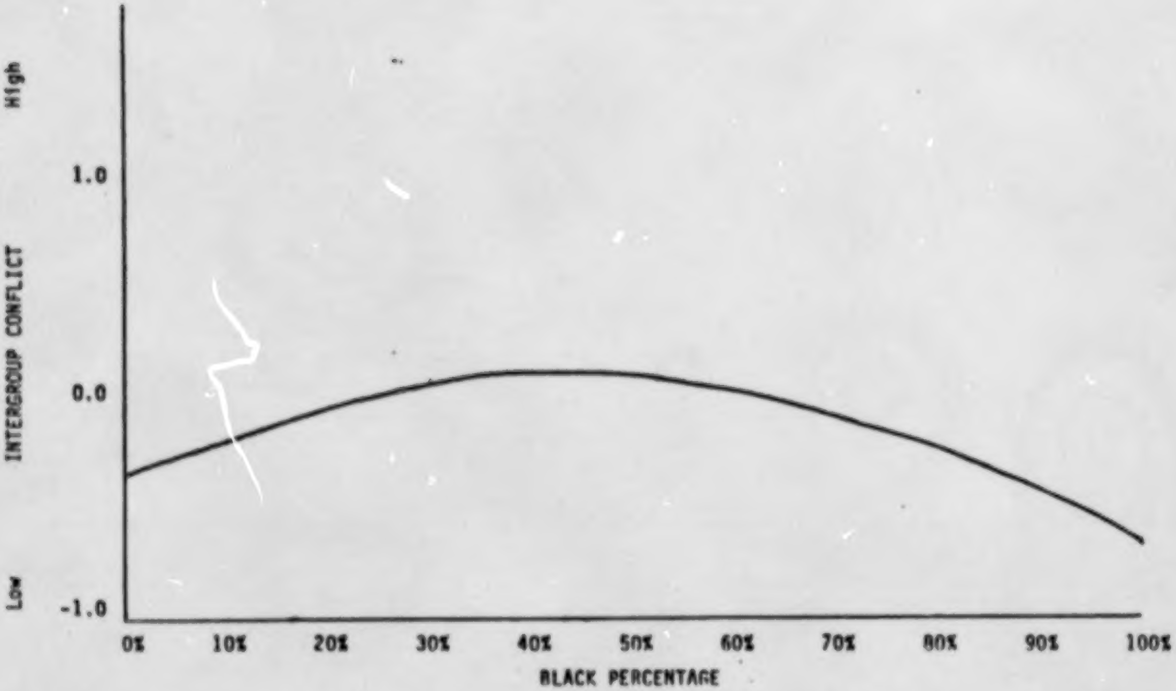

FIGURE 5.7: UNIQUE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND INTERGROUP CONFLICT

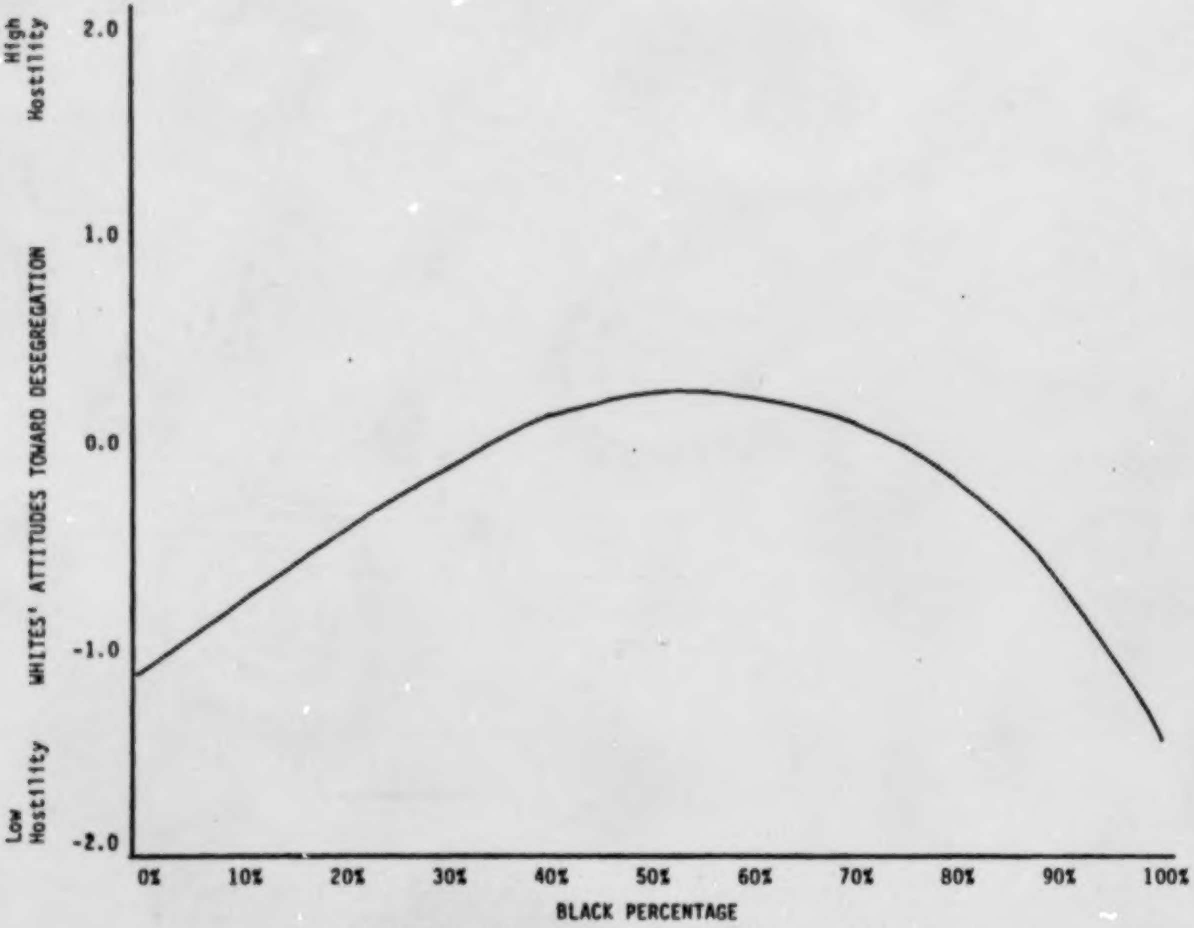

FIGURE 5.8: UNIQUE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITES' ATTITUDES TOWARD DESEGREGATION IN THE DEEP SOUTH

CHAPTER 6

INTERPRETATION AND IMPLICATIONS

This final chapter (1) provides a substantive interpretation of the findings in Chapter 5, (2) discusses the implications of these findings for setting racial quotas in desegregated schools, and (3) discusses the implications of the findings for future research.

INTERPRETATION

First, Chapter 5 indicated that several contextual variables are useful predictors of White hostility. As expected, White hostility was higher in schools that were lower in SES, more rural, and more "Southern." Despite the empirical confounding of the Black percentage with these other variables, the Black percentage was significantly related to White hostility even when the other contextual variables were in the equation. The fact that the Black percentage had some unique predictive power here suggests that the Black percentage may represent, at least in part, a distinct explanatory construct--presumably the threat to White control. In addition, the control-relevant analysis indicated that Whites were more sensitive to variation in the Black percentage when the proportion of Blacks on the school staff was higher, when a lower proportion of the Black enrollment was bused to the school, and when classes were less segregated. Those findings are also consistent with the inference that the Black percentage represents a control threat to Whites, since it appears that Whites pay more attention to the Black percentage when other control-relevant variables do not provide some reassurance for Whites that they are still in control.

Second, analyses within the contextual subsets confirmed the expectation that the relationship between the Black percentage and White hostility would be stronger in low-SES schools than in high-SES schools and stronger in large schools than in small schools. The former finding suggests that Whites may be more responsive to the control threat posed by the Black percentage when Blacks also pose a stronger status threat. The latter finding suggests that Whites may be more responsive to the control threat posed by the Black percentage when the school is large enough to support the development of racially separate friendship networks. Probably, as Fairchild (1977) argued, the existence of separate networks in large schools reduces the likelihood of friendly contact across groups. Another possibility is that the existence of racially separate networks in large schools also makes the issue of control more divisive, since positions taken on control-related matters are more likely to split students sharply along racial lines.

Regarding the regional breakdown, it was predicted that the relationship between the Black percentage and White hostility would be stronger in the South than outside the South. The relationship between the Black percentage and Whites' attitudes toward desegregation is, in fact, significant in the South but not outside the South. Thus, it appears that Whites, as predicted, may be more sensitive to the control threat posed by the Black percentage in the region where traditional norms more strongly support racial prejudice and discrimination. However, since the Black percentage is not significantly related to the other two measures of White hostility in either region, the overall results do not strongly support this conclusion.

Regarding the sub-regional breakdown within the South, the relationship between the Black percentage and White hostility (specifically, Whites' attitudes toward desegregation) was stronger in the deep South. Thus, it appears that Whites in the deep South may be more responsive to variation in the Black percentage than Whites in the upper South. In substantive terms, this finding suggests again that Whites may be more sensitive to the control threat when traditional norms regarding race are stronger.

Finally, it was predicted that the relationship between the Black percentage and White hostility would be stronger in rural schools than in urban schools, because traditional racial norms are stronger in rural areas. The breakdown into rural and urban schools did not support this prediction. The Black percentage was significantly related to Unfriendliness in rural schools but was also significantly related to Attitudes toward Desegregation in urban schools.

To summarize this second point, it appears that the control threat may be more salient to Whites in contexts where Blacks also pose a greater status threat to Whites, where racially separate friendship networks are more likely, and where traditional norms more strongly support racial prejudice and discrimination.

Third, the significant relationships between the Black percentage and these measures of White hostility were generally nonlinear in the inverted-U form. Since some of the relationships for Attitudes toward

Desegregation appeared to bend twice, not just once, this conclusion is disputable. But, for reasons cited above (see Chapter 5, pp. 232-233), it seems defensible to characterize the overall relationship between the Black percentage and White hostility (and perhaps even the specific relationship between the Black percentage and Attitudes toward Desegregation) as an inverted-U. If this characterization is accepted, the results here can be seen as consistent with Bullock's conceptualization of the control threat in desegregated schools, since they suggest that the Black percentage is most salient when control is not clearly held by one or the other racial group. The fact that the inverted-U also emerged in the relationship between the Black percentage and Black students' hostility toward Whites lends further support to this conclusion. And finally, the fact that the inverted-U emerged both in students' reports of racial hostility and in teachers' estimates of intergroup conflict is particularly persuasive, since those measures were based on different respondents and different item formats.

One could speculate that the matter of control can exacerbate intergroup relations in desegregated schools in at least two ways. First, whenever an issue cuts the school along racial lines (e.g., an inter-racial fight), the fact that neither group clearly controls the school may loosen the behavioral constraints on both Blacks and Whites, i.e., may allow students of either race to express hostility more openly. Second, the standing irresolution of the matter of "turf" may raise the level of chronic hostility between Blacks and Whites, since neither group can establish the primacy of its own cultural values or consistently and easily regulate students' informal access to facilities and activities at the school.

Fourth, White hostility did not consistently peak at a lower Black percentage in contexts where the nonlinear relationships are stronger. That is, the greater salience of the Black percentage in some contexts did not "move" the point of greatest hostility to a lower Black percentage. However, there was a pattern in "peak points" for the different measures of White hostility. In the seven significant relationships for Attitudes toward Desegregation, the point of greatest hostility (i.e., the apex of the prediction line) was always no higher than 50% Black (from 35% to 50%), while in the four significant relationships for Unfriendliness that point was always at least 50% Black (from 50% to 61%).[1] It is hard to know what to make of this difference, especially since there is so much variability around the prediction line. But the fact that one of the measures of White hostility concerns Whites' attitudes and the other concerns Whites' behavior suggests that Whites' attitudes and behavior toward Blacks may "respond" a bit differently to the Black percentage. Perhaps Whites are least favorable to desegregation when they feel that their control is most tenuous. But Whites' actual behavior toward Blacks was least friendly when Whites were just barely outnumbered by Blacks, i.e., when Whites were barely not in control. (As noted above, this speculation assmes that 50% Black is, in fact, the point at which Whites perceive a shift from White control to Black control.)

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[1] The point of greatest hostility for Intergroup Conflict is below 50% Black in four significant relationships (from 31% to 44% Black) and is above 50% Black in two other significant relationships (53% and 54% Black).

Finally, the analyses in Chapter 5 can be used to draw a direct comparison between the predictive power of the Black percentage and the predictive power of variables representing other constructs. As noted in Chapter 1, pp. 23-24), the concept of a control threat is integral to a perspective that focuses on power or competition between racial groups as a key determinant of racial hostility. However, this research also included variables that are integral to two other perspectives on racial hostility. First, School SES was taken as a proxy for the status threat posed by Blacks in desegregated settings--a construct that is important in a perspective that focuses not on control but on class and status differences between racial groups. Second, three other contextual variables--Region, Sub-region, and Ruralism--were taken to represent the strength of traditional racial norms. These norms appear to be stronger in the South than outside the South, stronger in the deep South than in the upper South, and stronger in rural areas than in urban areas. The construct of racial norms is central to a third perspective, viz., a perspective that posits socialization (i.e., the transmission of norms) as a key determinant of racial hostility. Since this research included all of these variables, it affords a provisional opportunity to compare the predictive power of these three perspectives. As shown in Table 6.1, the proportion of variance accounted for by each of these variables differs across measures of White hostility. The Black percentage accounts for 6.8% of the variance in Attitudes toward Desegregation and 5.4% of the variance in Unfriendliness, but it predicts only 1.0% of the variance in Attitudes toward Contact. School SES, which purportedly represents the status threat posed by Blacks, accounts for 3.5% and 4.8% of the variance in Attitudes toward Desegregation and Attitudes toward Contact, respectively, but accounts for only 0.7% of the variance in Unfriendliness. South[2] and Ruralism, which were taken to represent the strength of racial norms, together account for 9.1% of the variance in Attitudes toward Desegregation and 14.9% of the variance in Attitudes toward Contact. However, South and Ruralism account for only 1.2% of the variance in Unfriendliness.

These results are certainly not a full-blown test of the explanatory importance of these three perspectives on racial hostility. But the greater contribution of South and Ruralism does suggest that racial hostility among White students in desegregated schools may be more a matter of socialization to norms than of threats to Whites' status and control. In other words, particular contextual features of the school (school SES and the Black percentage) seem a bit less important than broader contextual features of the environment (region of the country and degree of ruralism). On the other hand, school SES and the Black percentage clearly provide some unique predictive power, even when compared as single variables to the two variables representing socialization. Moreover, findings reported in Chapter 5 indicate that the Black percentage may pose a more salient threat to Whites in settings where Whites are more strongly socialized to traditional racial norms. Consequently, the most definsible conclusions would seem to be that (1) all three perspectives contribute to the prediction of White hostility,[3] and (2) broader features of the environment may provide a context in which particular features of the school take on added significance for Whites. It should be noted here that although the variance accounted for by each variable is not impressively large, the overall R^2's for Attitudes toward Desegregation (R^2=.241) and for Attitudes toward Contact (R^2=.287) are fairly substantial. Thus, these variables in combination offer a respectable degree of predictive power for two of the three measures of White hostility in this research.

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[2] As explained in Chapter 5, the variable labeled "South" was created from Region and Sub-region. The values for South are: (0) Non-South, (1) upper South, and (2) deep South.

CONCLUSIONS AND RESERVATIONS

These results are consistent with the inference that the Black percentage represents a threat to White control. Specifically, this research (1) isolated a unique relationship between the Black percentage and White students' racial hostility, (2) found that this relationship generally appears in a form (the inverted-U) that can be explained under the control-threat concept, and (3) confirmed the prediction that this relationship is stronger in schools where White control is otherwise weak.

Of course, there are several reasons for regarding these conclusions are tentative. First, the control-threat interpretation is certainly not the only possible interpretation of the results. For example, it is possible that Whites who are most hostile toward Blacks are simply not enrolled in predominantly Black schools. That is, such Whites may be more likely to withdraw from schools as the Black percentage increases, leaving behind a White enrollment that is relatively less hostile toward Blacks. If so, the inverted-U relationship between the Black percentage and White hostility would not constitute evidence that the control threat is greatest in racially balanced schools. It would be evidence for variability in the racial attitudes of Whites who have remained in schools with different Black percentages. In fact, the "true" relationship between the Black percentage and White hostility (i.e., the relationship that would emerge if Whites could not withdraw from school) might remain linear and positive and might even become nonlinear in the J-curve form. Another possibility is that schools with a relatively high Black percentage have been desegregated for a longer time. If so, the results might suggest that White hostility is highest in schools that have been recently and substantially desegregated (assuming that "substantial" desegregation is about 40% to 60% Black). Then, as the school becomes more heavily Black over time, Whites come to accept desegregation and begin to establish more friendly contacts with Blacks. Without longitudinal data, possibilities such as these cannot be ruled out.

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[3] This conclusion is in accord with research by Wright (1976, 1977) in which socialization to racial norms and the control threat posed by Blacks independently contributed to the prediction of White support for George Wallace in 1968. (See Chapter 3, pages 88-91.)

Second, the credibility of the findings is open to some question. Since the number of schools (89) available for this research was rather small, it is possible that some or all of the findings are a fluke of sampling. Moreover, the model used in these analyses may not have correctly specified the relationship between the Black percentage and

White hostility. That is, the incorporation of additional predictors into the model might have produced different regression coefficients for the Black percentage. Variables which might have been incorporated include the recent increase in the Black percentage (which was cited as a useful predictor of White hostility in Chapter 3) and several individual-level variables (which could be aggregated to the school level or used in an individual-level model)--e.g., social-class prejudice, sex, or years of experience in desegregated schools.

Finally, the generalizability of the findings is also open to some question. The sample was drawn from a set of schools which received funds from the Emergency School Aid Act (ESAA) and, as Chapter 4 indicated (p.186), these schools are larger and more urban than is average for elementary schools nationwide. Of course, the data analysis controlled for both school size and ruralism. But since these schools do not constitute a nationally representative sample, it is still possible that the findings are peculiar to ESAA-funded schools. Also, the findings clearly cannot be generalized to variables other than White students' hostility in desegregated schools. There is no reason to suppose that relationships between the Black percentage and White electoral behavior, White resistance to school desegregation, or White flight necessarily follow the same inverted-U form. Indeed, previous research suggests that these relationships are often nonlinear in the J-curve form. Possibly, the determinants of relationships between the Black percentage and these other indicators of White hostility are quite different from the determinants of the relationship between the Black percentage and White students' racial hostility in desegregated schools. Thresholds for expressing or acting on hostility may also be different for these various indicators. In any case, the most defensible conclusion here seems to be that these findings pertain specifically to White students' hostility toward Blacks in this particular sample of desegregated schools.

IMPLICATIONS FOR RACIAL QUOTAS IN DESEGREGATED SCHOOLS

Since these conclusions are tentative, policy implications to be drawn from this research must also remain tentative. However, the research does suggest that a policy of maximal Black quotas for desegregated schools should be more carefully considered. As noted in Chapter 1, policy-makers have urged the use of maximal Black quotas in desegregated schools--usually somewhere between 15% to 50% Black. Such quotas have been implemented on the explicit assumption that Whites are much more hostile toward Blacks in settings above a certain Black percentage, i.e., on the assumption that the relationship between the Black percentage and White hostility is nonlinear in the J-curve form. This research did find a nonlinear relationship between these variables, but the form of the relationship was the inverted-U form, not the J-curve form. That is, White hostility was highest in schools between 40% and 60% Black and then declined in schools past 60% Black. Thus, if the only consideration in setting school racial composition were the effect of school racial composition on White students' hostility toward Blacks, one possible implication of this research is that students should not be placed in racially balanced schools. But perhaps Whites could be placed in schools where Blacks predominate (and Blacks, in schools where Whites predominate) without intensifying their racial hostility beyond the level that exists in schools where their own race predominates.

There are at least three reasons for regarding this implication as tentative. First, given problems regarding the credibility and generalizability of these findings, more convincing support for this implication must await future research. Second, analyses for the full set of schools found nonlinear relationships between the Black percentage and White hostility that were significant but rather flat. (See Figures 5.5 to 5.7.) That is, there was not a great deal of difference in White hostility across the full Black-percentage range, so a policy of avoiding racially balanced schools might not produce any substantial reduction in White hostility. On the other hand, within certain contextual subsets of schools, the curves were more pronounced, indicating considerable variation in White hostility across the Black-percentage range. This was especially true for schools in the deep South, but it was also true for schools throughout the South and for schools with a low aggregate SES. Accordingly, it might still be sensible to consider reducing the number of racially balanced schools in these contexts. Notably, a selective policy of this sort is consistent with a recent observation by Hawley & Rist regarding school desegregation policy, viz., that future efforts to promote school desegregation will need "to be strongly situation-specific" (Hawley & Rist, 1975: 424).

A third reason for regarding this implication as tentative is that the reduction of racial hostility is only one of the factors to be considered in evaluating racial quotas for desegregated schools. That is, the relationship between school racial composition and other variables must also be considered--variables such as White flight, student affect, and student academic achievement. For example, two of the studies reviewed in Chapter 3 (Giles, 1978; Clotfelter, 1976) suggested that the relationship between the Black percentage and White flight from schools in the South may follow the J-curve form. Specifically, White flight in those studies was faster from schools at least 25% Black than from schools under 25% Black and continued to accelerate past that point.[4] Thus, to minimize White flight from Southern schools, it may be advisable to avoid placing Whites in either racially balanced schools or predominantly Black schools. Regarding student affect, Drury (1980) has reported that residual self-esteem among high-school Blacks in the South is lower in schools between 40% and 60% Black than in predominantly White or predominantly Black schools. "Residual self-esteem" in his study was the variation in self-esteem that was not accounted for by a set of eleven student background variables (e.g., SES, achievement, and ruralism). Thus, to maximize the favorable impact of school desegregation on Blacks' self-esteem, it may be advisable to avoid placing Black students in racially balanced schools. St John (1975: 104-105) has argued that Whites may feel a strong sense of resentment or stigmatization if they are placed in schools over 20% Black, espqcially if the school Black percentage is considered likely to increase in the future. On the other hand, as noted in Chapter 2 (p. 51), Willie (1976) has argued that each racial group should comprise at least 20% of the school enrollment, so that both groups feel some control over "institutional decision-making" (Willie, 1976: 319). Finally, with respect to academic achievement, Pettigrew's (1971) review of research on school racial composition and student achievement indicated that minority students perform better in predominantly White schools than in balanced or predominantly minority schools. Partly on the basis of that research, Pettigrew urged a Federal court in Norfolk, Virginia to set a quota of 30% Black for schools in that city (Bell, 1975). In short, policy-makers must surely consider not just the matter of racial hostility but also variables such as these, in developing the parameters of school desegregation efforts.[5] Consequently, even if future research also finds the inverted-U relationship between the Black percentage and White students' hostility toward Blacks, other concerns may override the implication that White students should be assigned to predominantly White or predominantly Black schools but not to racially balanced schools.[6] If other concerns do point to the desirability of racially balanced schools, an alternative policy implication of this research is that efforts should be made to improve intergroup relations in those schools.

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[4] Clotfelter (1976) found a "start point" of 25% Black in White flight from Mississippi school districts. Giles (1978) found an "acceleration point" of 30% Black in White flight from districts throughout the South.

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[5] Aside from these educational and sociological concerns, there is of course the matter of equitability in school desegregation. That is, policy-makers must also consider the fairness and political consequences of burdens imposed on each racial group, such as school reassignment and travel times to and from school.

[6] As is the case for racial hostility, there may be contextual subsets of schools in which the relationship between school racial composition and other variables seems especially important. Policy-makers may therefore need to consider the "trade-offs" associated with various racial compositions within specific contextual subsets.

IMPLICATIONS FOR FUTURE RESEARCH

Finally, there are at least three needs to which future research could be targeted. First, there is clearly a need for additional data on the relationship between the Black percentage and White hostility. For example, longitudinal data would enable researchers to examine changes in White hostility as the school Black percentage increases (or decreases) over time, thus clarifying more directly the causal connection between these variables. More specifically, longitudinal data would provide a basis for evaluating alternatives to the control-threat explanation, e.g., explanations based on "contact theory" or on shifts in the racial attitudes of Whites who remain enrolled in schools with different Black percentages. (See Chapter 6, pp. 284-285). Quasi-experimental research might also produce useful results. Scenarios for school desegregation could be developed in which certain contextual conditions (e.g., school SES, the recent Black-percentage increase) are systematically varied in a factorial design. Respondents could be "placed" in these scenarios and asked to report their levels of discomfort, their attitudes toward other-race students, or their desire to withdraw (flee) from the school. Such research might be particularly helpful in clarifying the causal connection between the Black percentage and White hostility, since it would allow the analyst to disentangle the Black percentage from other contextual variables which are related to White hostility.

Second, there is also the need for more direct measures of White control in desegregated schools. Although existing research does indicate that students infer the level of their control partly from the Black percentage and from other control-relevant variables, the control-threat concept might be stronger if future research included (1) a measure of control as perceived by both White and Black students or (2) a measure of how salient the issue of control actually is for White and Black students. The relationship between such measures and the control-relevant variables could be assessed, to see how well the control-relevant variables capture the level of control that is actually perceived by students or the level of concern for "turf" among students. Also, the relationship between these more direct measures of control and students' racial hostility could be examined, to see whether that relationship replicates the inverted-U form that emerged here.

Finally, future research could also examine the relationship between perceptions of the control threat posed by other-race students and the actual efforts of other-race students to gain or maintain control. In accord with past research, this dissertation adopted the assumption that Blacks can represent a control threat to Whites (and vice versa) without necessarily taking any specific actions toward control or even behaving as a unitary bloc. However, it would be useful to examine the relationship between the perceived control threat and specifiable efforts by individuals, small groups, or large blocs to assert control in desegregated schools. The usefulness of examining this relationship is underscored by the fact that levels of perceived control and actual control may be markedly dissimilar. Farley et al. (1978) found that Whites in a Detroit survey designated a particular area of that city as a "Black neighborhood," even though the area was actually only about 20% Black. One possible reason for this designation is that Whites simply overestimated the percentage of Blacks in the area. Whites have, in fact, shown a tendency to overestimate the Black percentage in various desegregated settings (e.g., Kephart, 1954; Longshore, 1972). Another possibility is that Whites tend to overestimate the racial hostility of Blacks and therefore infer a stronger control threat from Blacks than the threat (if any) which is actually posed. Attribution research clearly supports this possibility. A number of studies have indicated that when intergroup conflict is occurring or seems likely, in-group members tend to exaggerate the undesirable traits of out-group members and often assume that the out-group is more hostile than it really is. (See the review of research in Cooper & Fazio, 1978.) On the other hand, even if levels of perceived and actual control are quite different, perceived control may still be the more powerful predictor of racial hostility. To pursue this possibility, future research could also compare the utility of perceived and actual control for predicting White hostility toward Blacks.

Until research of this sort is conducted, these findings will remain disputable and must be considered tentative. But, to reiterate, the data do suggest that the Black percentage represents a control threat to Whites and that this threat is most salient in schools where neither race predominates. Further elaboration and confirmation of these inferences must, however, await further research.

TABLE 6.1:
VARIANCE IN WHITE HOSTILITY
ACCOUNTED FOR BY EACH CONTEXTUAL VARIABLE

Construct	Variable	Attitudes toward Desegregation	Unfriendliness toward Blacks	Attitudes toward Contact
Status Threat Posed by Blacks	School SES	.035#	.007	.048**
Socialization	South	.036#	.006	.113***
	Ruralism	.055***	.006	.036**
Control Threat Posed by Blacks	School Black Percentage	.068***	.054**	.010
	R^2	.241***	.127	.287***
	N	86	86	86

**p<.01
***p<.005
#p<.1

NOTE: Intergroup Conflict is omitted from Table 6.1 because it is not a measure of White hostility. The Black percentage accounts for 5.8% of the variance in Intergroup Conflict. The other variables combined account for another 4.0%. School Size is also omitted because it was taken to represent a construct which is not of primary interest here (viz., the viability of racially separate friendship networks). School Size accounts for 0.1% of the variance in Attitudes toward Desegregation; 1.2%, in Unfriendliness; and 0.4%, in Attitudes toward Contact.

APPENDIX A

SCATTERPLOTS OF RELATIONSHIPS BETWEEN THE BLACK PERCENTAGE AND WHITE HOSTILITY OR INTERGROUP CONFLICT

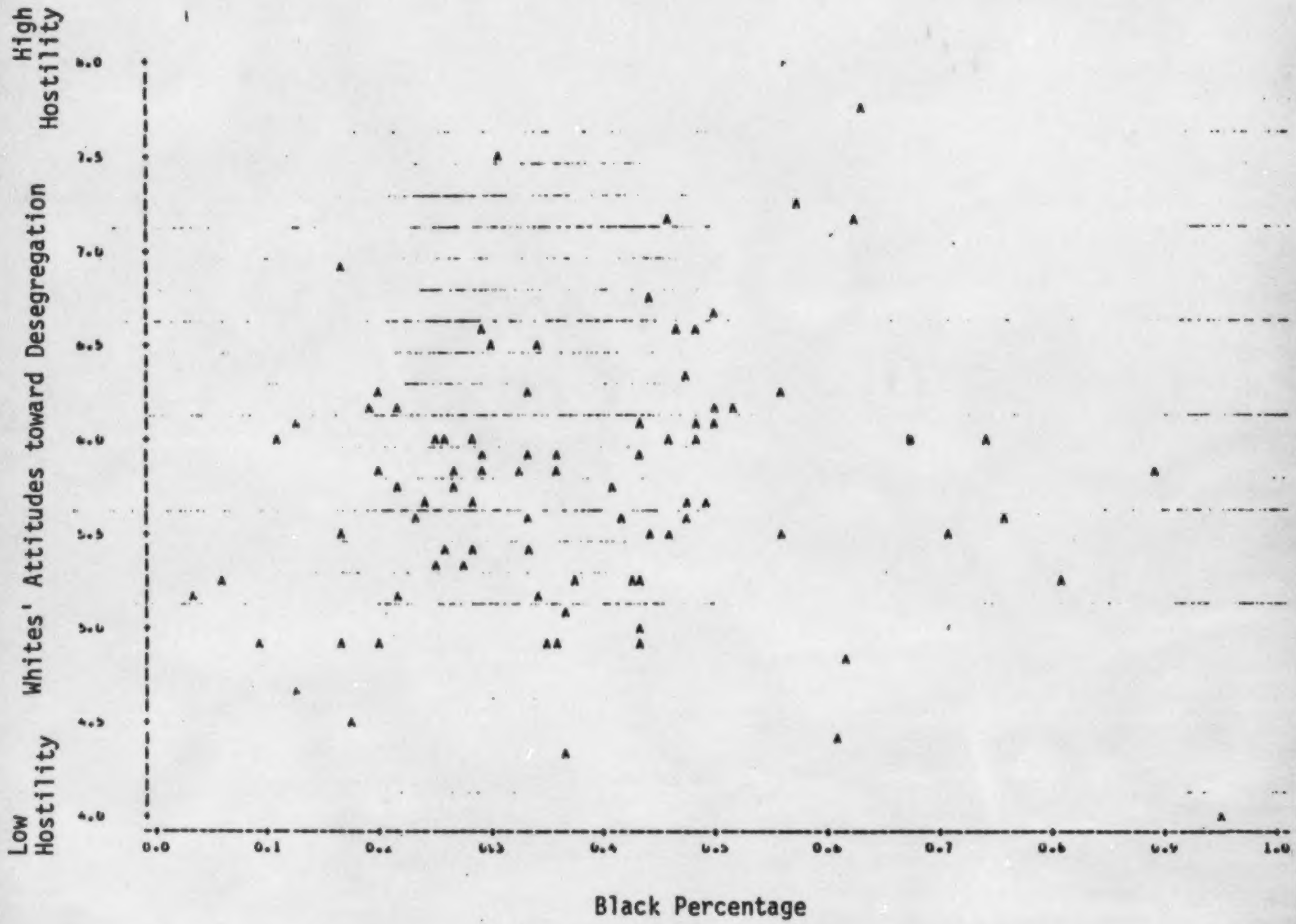

FIGURE A.1: SIMPLE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITES' ATTITUDES TOWARD DESEGREGATION

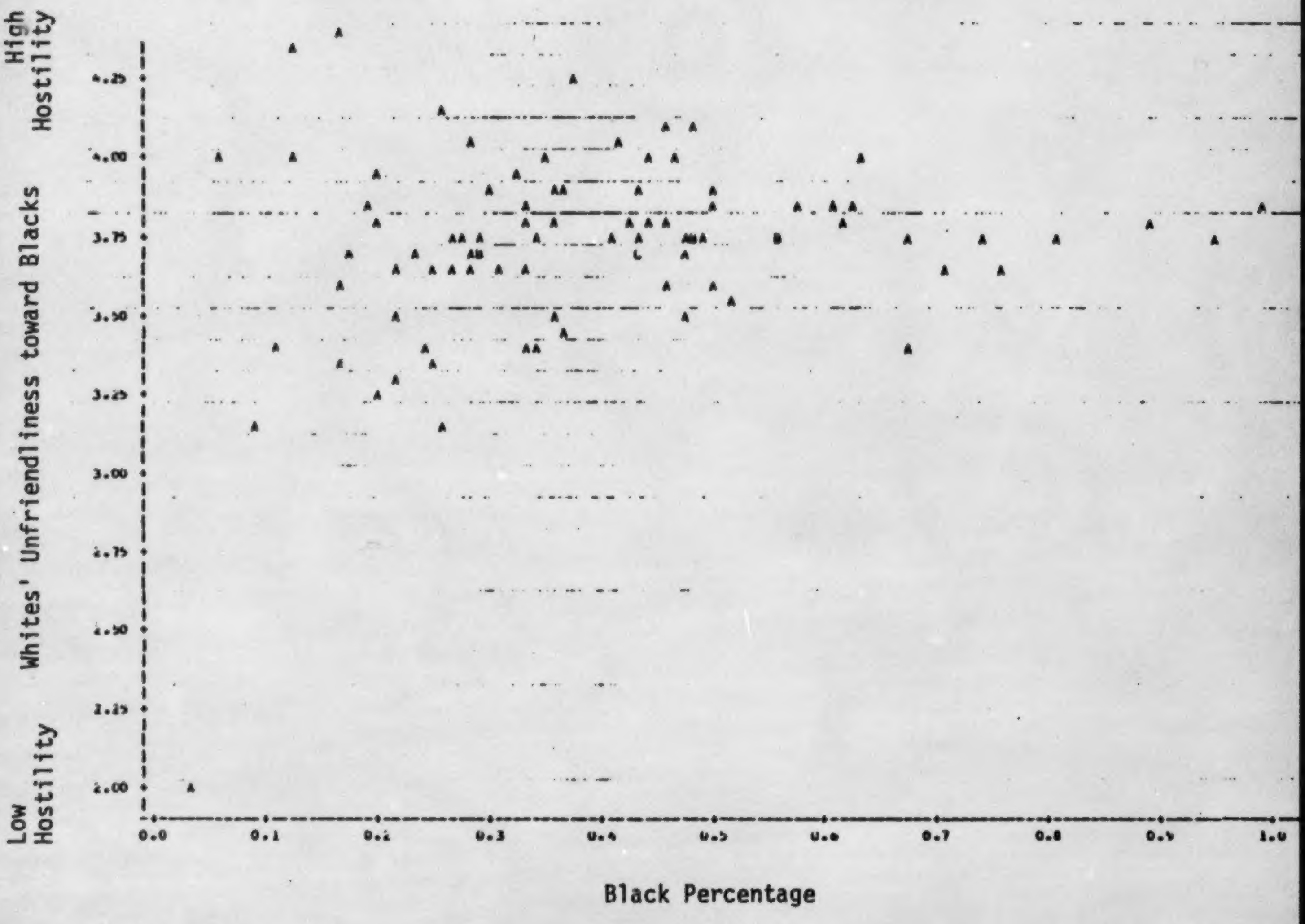

FIGURE A.2: SIMPLE RELATIONSHIP BETWEEN THE
BLACK PERCENTAGE AND WHITES' UNFRIENDLINESS TOWARD BLACKS

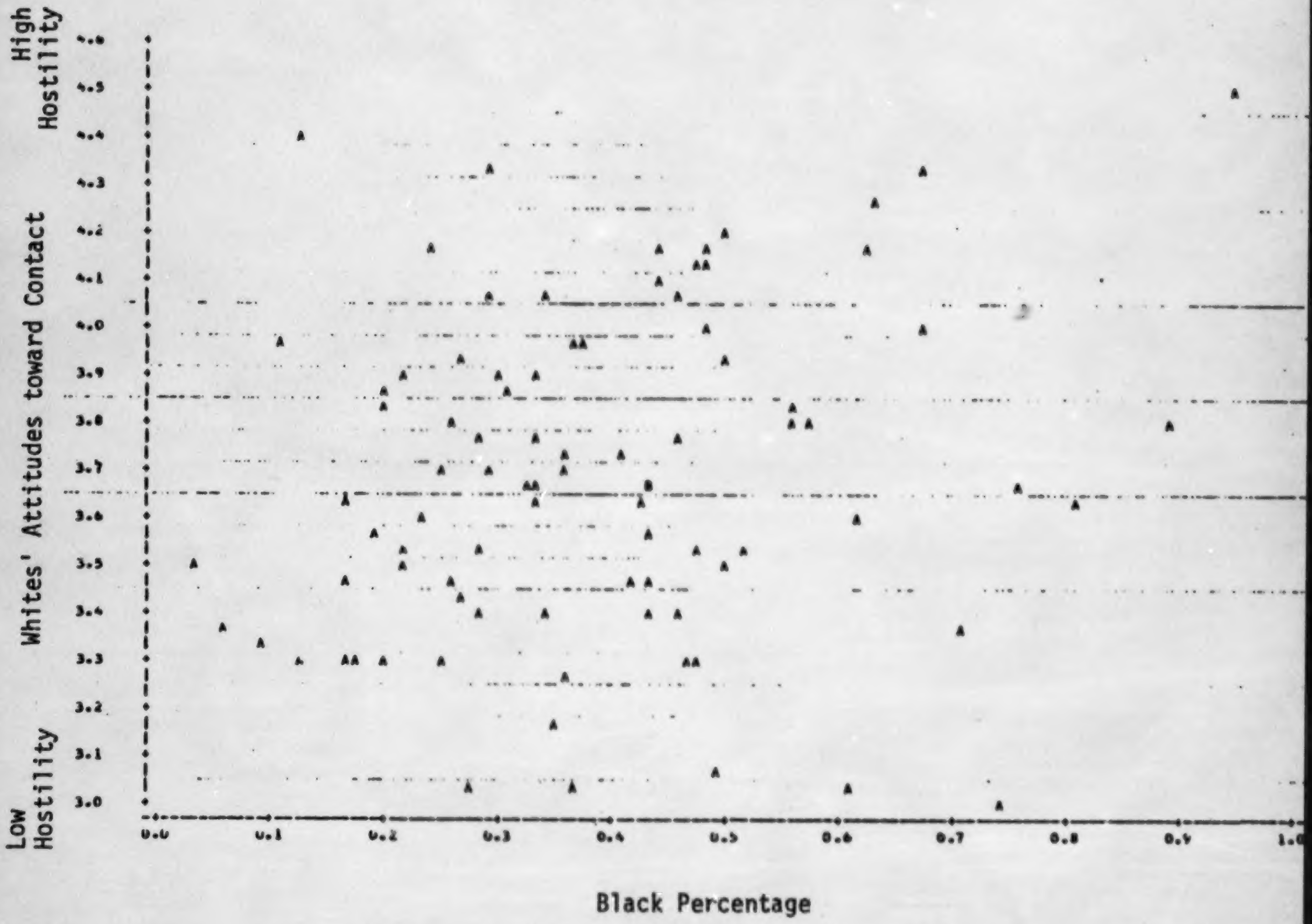

FIGURE A.3: SIMPLE RELATIONSHIP BETWEEN THE
BLACK PERCENTAGE AND WHITES' ATTITUDES TOWARD CONTACT WITH BLACKS

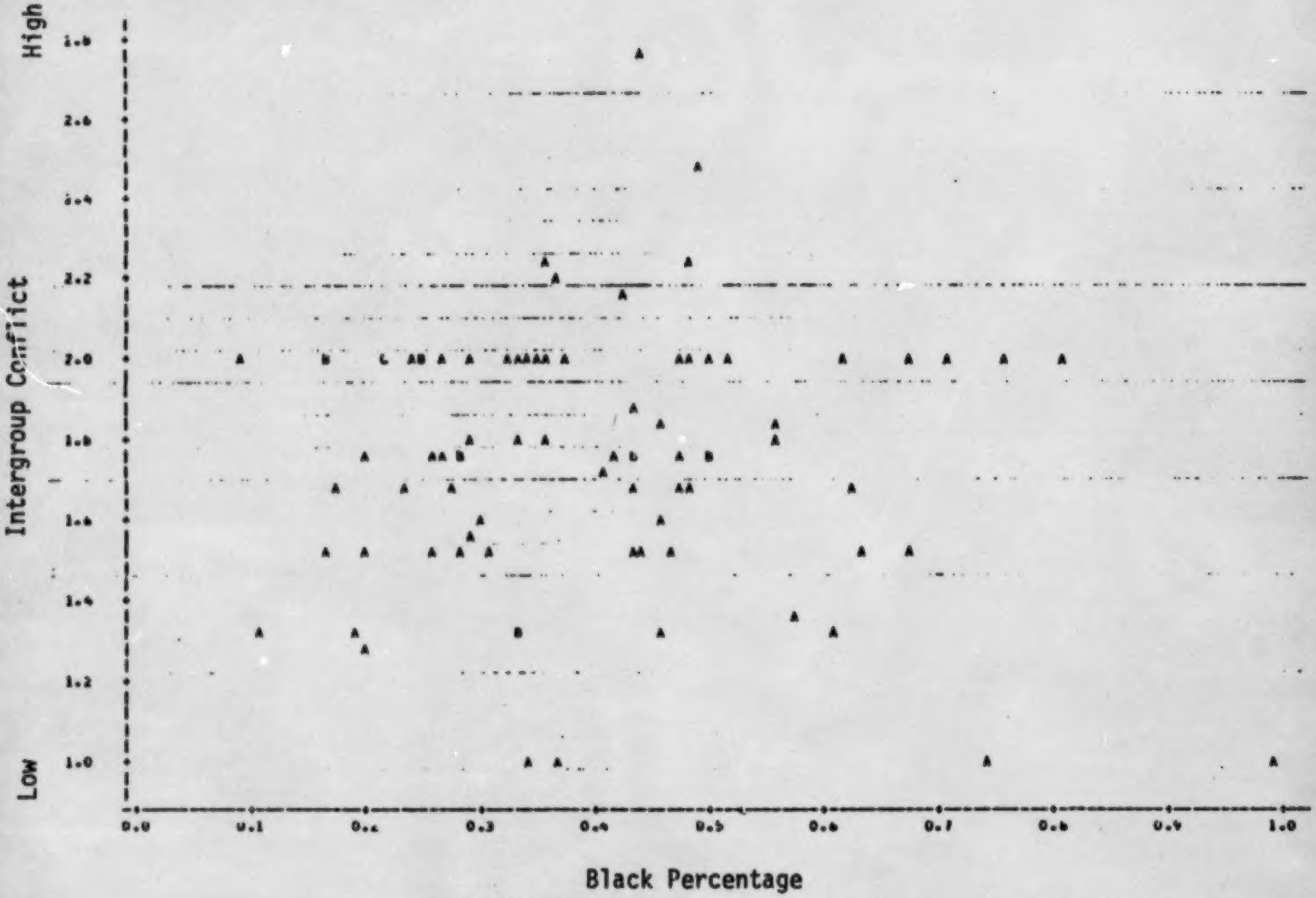

FIGURE A.4: SIMPLE RELATIONSHIP BETWEEN THE
BLACK PERCENTAGE AND INTERGROUP CONFLICT

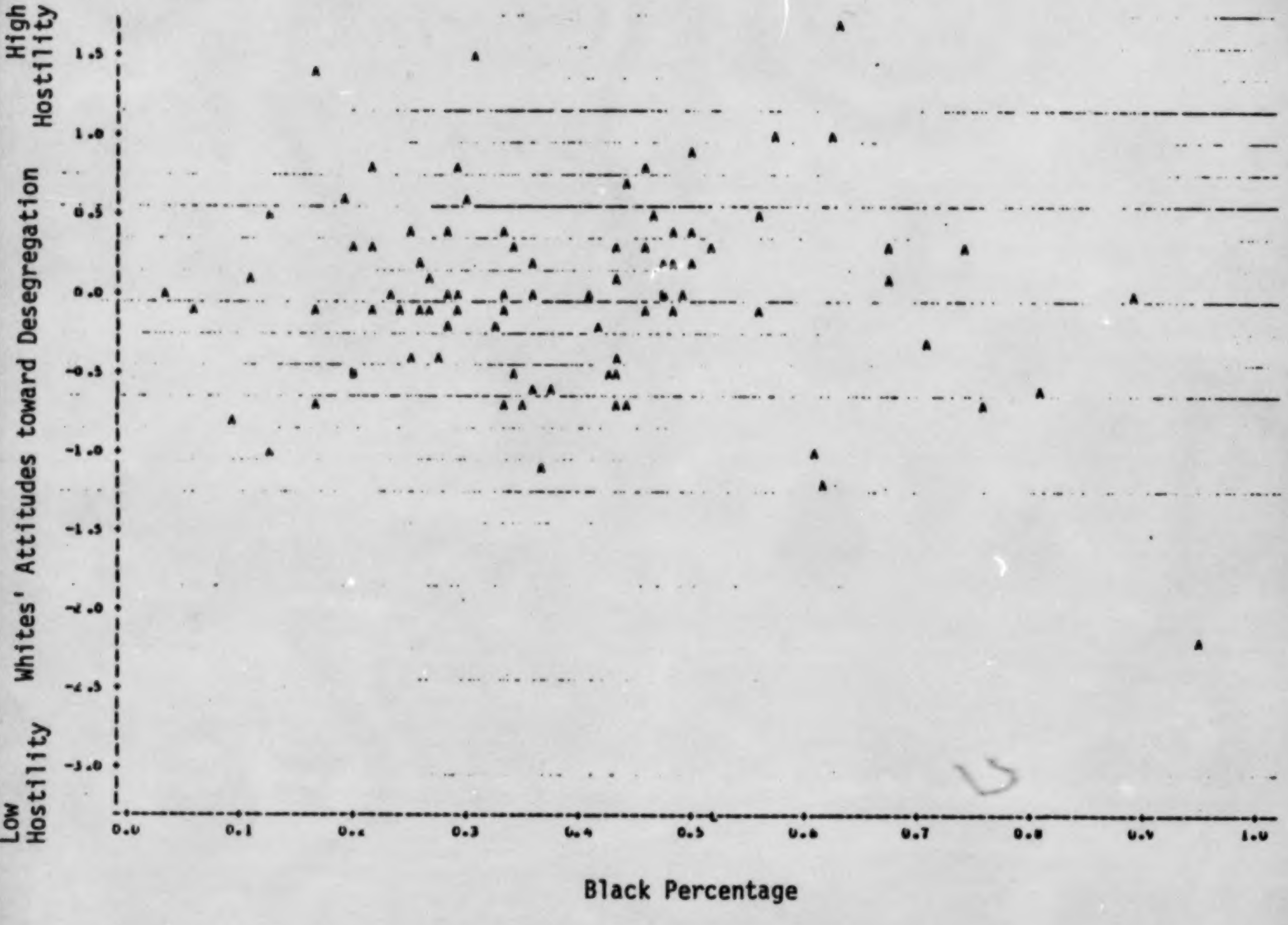

FIGURE A. 5: UNIQUE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITES' ATTITUDES TOWARD DESEGREGATION

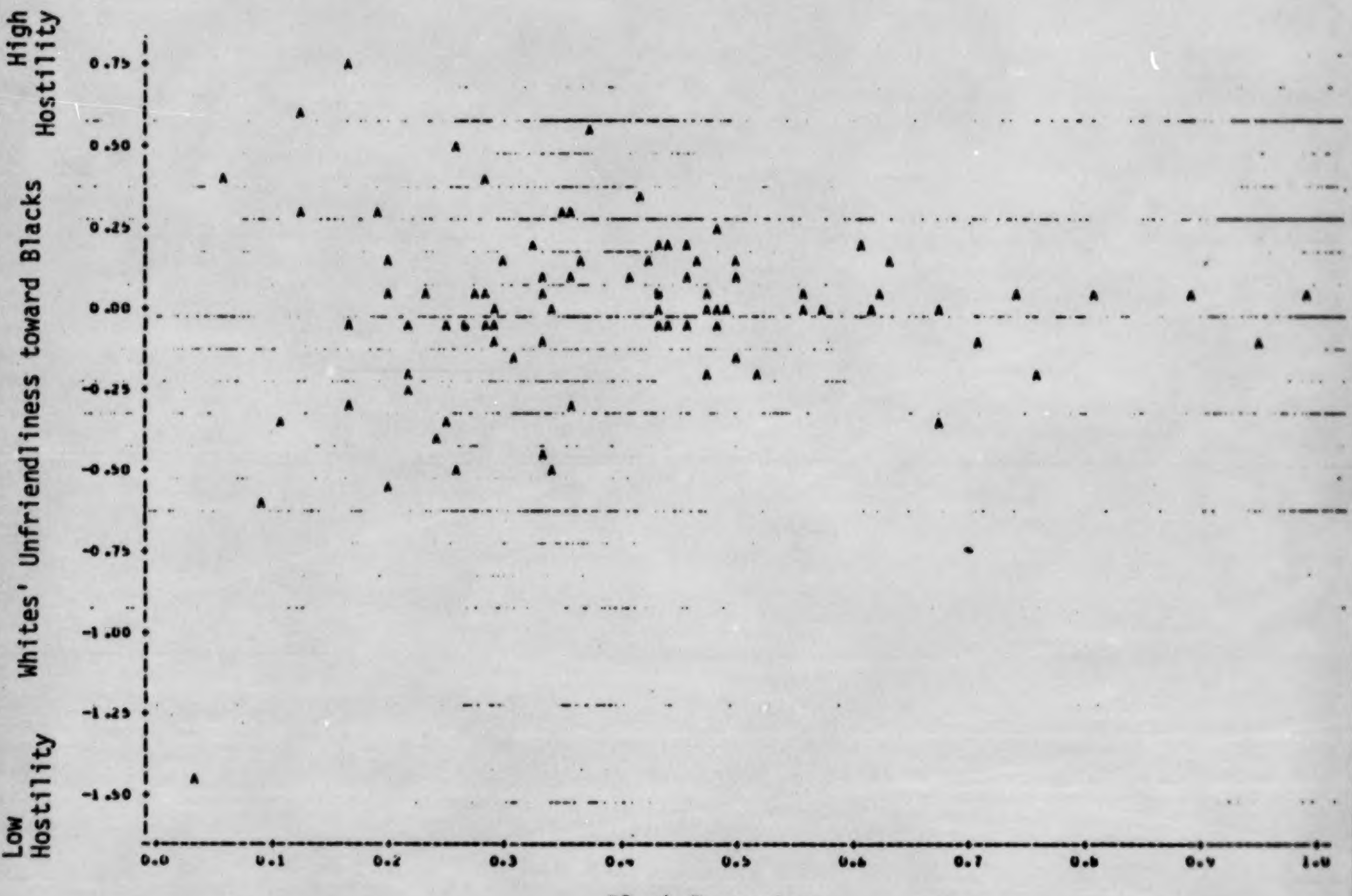

FIGURE A.6: UNIQUE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITES' UNFRIENDLINESS TOWARD BLACKS

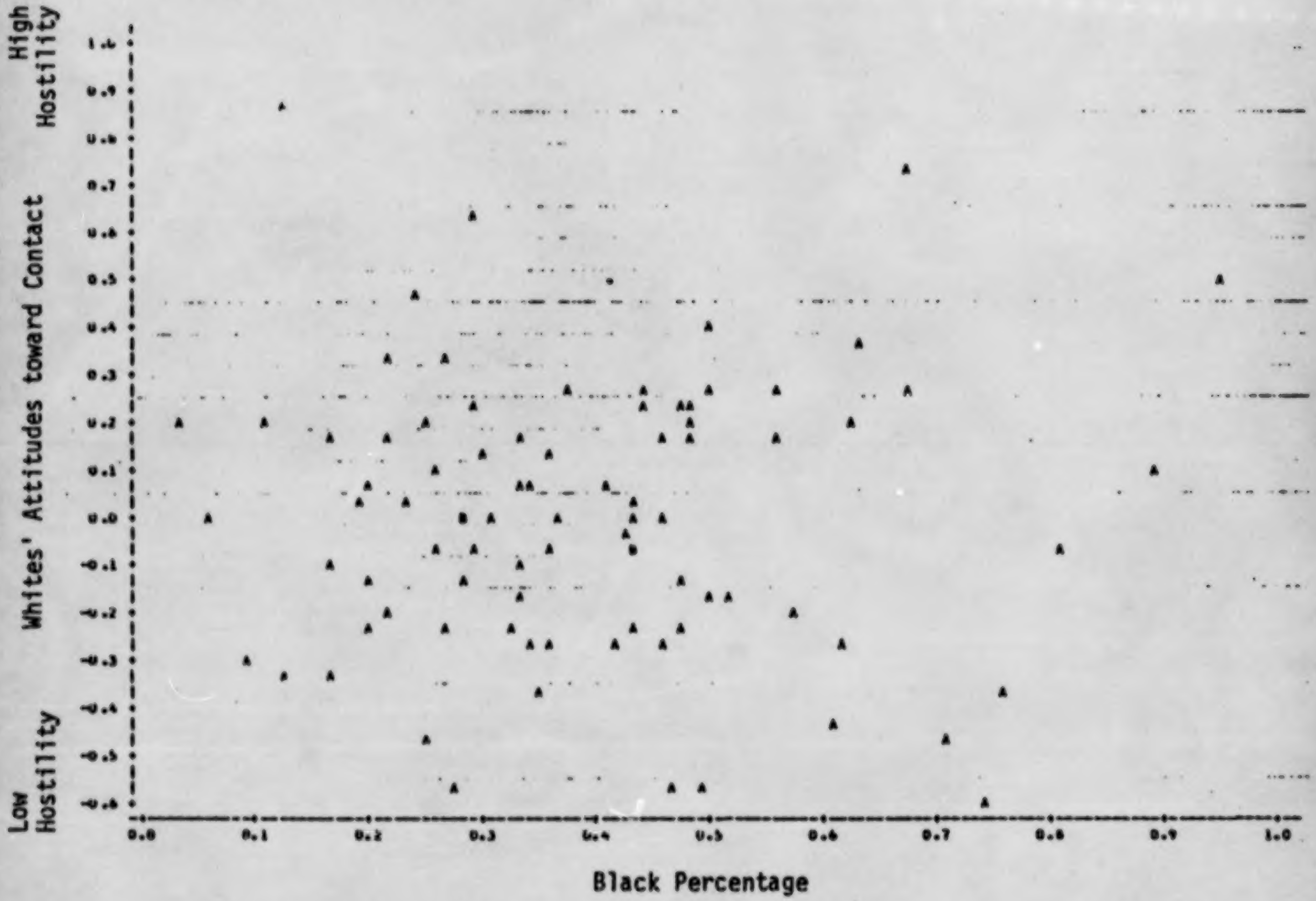

FIGURE A.7: UNIQUE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND WHITES' ATTITUDES TOWARD CONTACT WITH BLACKS

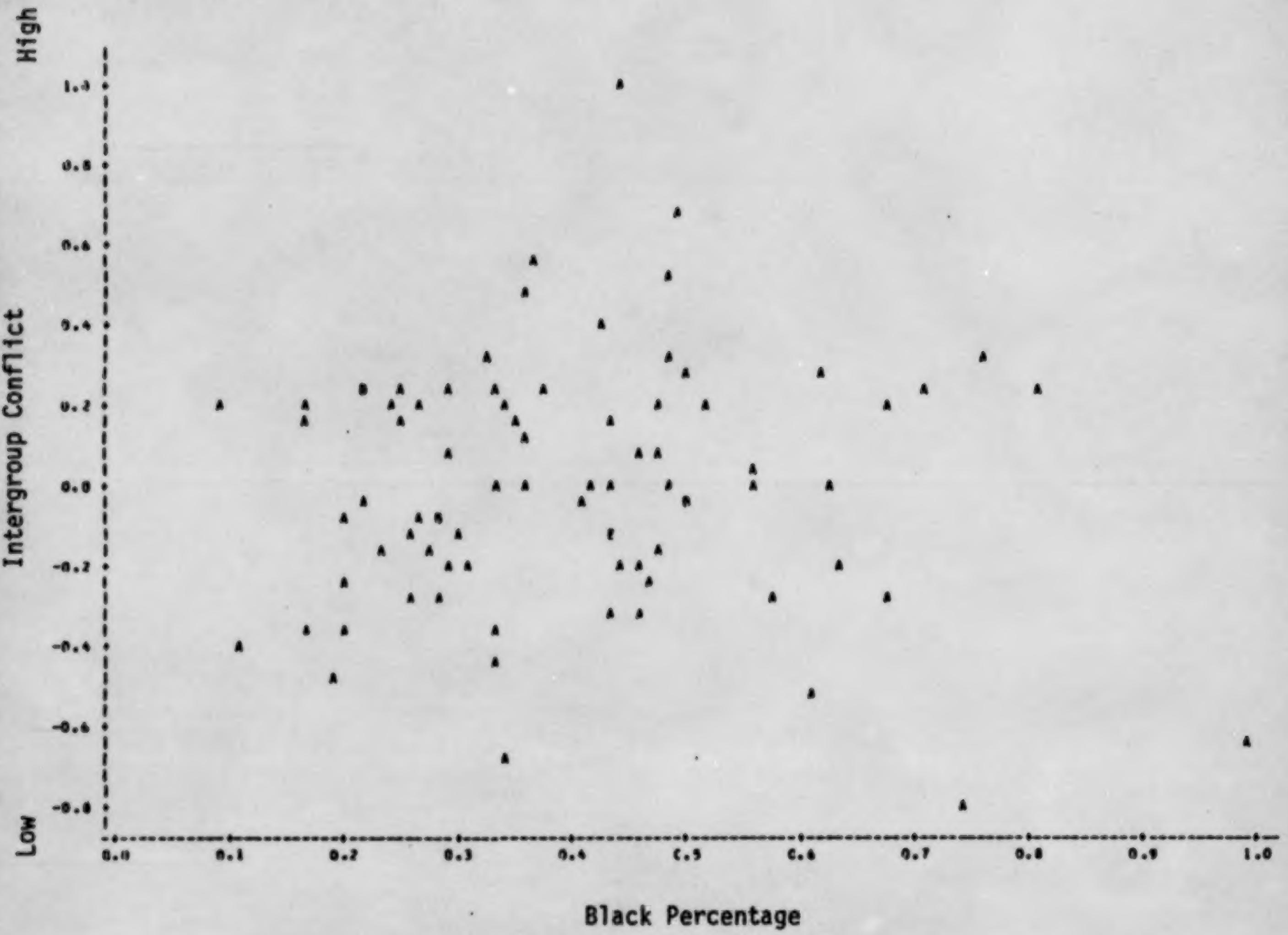

FIGURE A.8: UNIQUE RELATIONSHIP BETWEEN THE BLACK PERCENTAGE AND INTERGROUP CONFLICT

APPENDIX B

MEANS AND RANGES FOR ALL VARIABLES WITHIN CONTEXTUAL AND CONTROL-RELEVANT SUBSETS

TABLE B.1:
VARIABLES WITHIN CONTEXTUAL SUBSETS

	All Schools		High-SES Schools		Low-SES Schools	
	Mean	Range	Mean	Range	Mean	Range
School Black Percentage	39.4%	3.2-99.1%	47.0%	9.0-99.1%	32.3%	3.2-80.9%
School SES	16.6	11.2-23.0	14.8	11.2-16.2	18.9	16.3-23.0
School Size	443.3	131-1,105	457.5	131-1,105	430.0	195-948
Ruralism	12,166.3	355-228,251	9,247.5	355-65,180	15,019.8	970-228,251
Region	S=52		S=28		S=24	
Sub-region	DS=22		DS=17		DS=5	
Staff Racial Composition	30.2%	2.6-100%	35.5%	5.1-100%	25.2%	2.6-78.3%
Black Busing	31.9%	0-100%	25.2%	0-100%	38.2%	0-100%
Classroom Resegregation	12.7%	2.2-38.1%	13.7%	2.2-33.2%	11.8%	2.8-38.1%
Attitudes toward Desegregation	4.8	4.0-7.7	4.9	4.0-7.7	4.6	4.3-7.7
Unfriendliness toward Blacks	3.7	2.0-4.4	3.7	2.0-4.4	3.7	2.3-4.2
Attitudes toward Contact	3.7	3.0-4.5	3.6	3.0-4.5	3.8	3.0-4.4
Intergroup Conflict	1.8	1.0-2.8	1.8	1.0-2.8	1.8	1.0-2.2
N	89		43		46	

TABLE B.1:
VARIABLES WITHIN CONTEXTUAL SUBSETS
(CONT'D)

	Large Schools		Small Schools		Rural Schools		Urban Schools	
	Mean	Range	Mean	Range	Mean	Range	Mean	Range
School Black Percentage	43.2%	3.2-99.1%	37.2%	5.6-59.5%	39.8%	3.2-99.1%	37.8%	12.8-94.9%
School SES	16.4	11.2-23.0	16.7	12.3-22.8	16.5	11.2-23.0	16.9	11.9-19.5
School Size	629.2	460-1,105	333.7	131-450	437.1	131-940	466.3	205-1,105
Ruralism	12,245.7	970-65,180	12,120.2	355-228,251	4,551.3	355-10,143	41,357.4	11,734-228,251
Region	S=25		S=27		S=40		S=12	
Sub-region	DS=11		DS=11		DS=16		DS=6	
Staff Racial Composition	30.4%	2.6-78.9%	30.0%	3.7-100%	30.8%	2.6-100%	27.5%	4.8-54.1%
Black Busing	20.8%	0-100%	38.4%	0-100%	31.1%	0-100%	35.2%	0-100%
Classroom Resegregation	11.6%	2.2-31.4%	13.4%	2.8-38.1%	13.2%	2.2-38.1%	10.9%	2.6-31.4%
Attitudes toward Desegregation	4.9	4.0-7.2	4.7	4.3-7.7	4.9	4.3-7.7	4.3	4.0-6.0
Unfriendliness toward Blacks	3.5	2.0-4.4	3.7	2.5-4.4	3.6	2.0-4.1	3.7	2.5-4.4
Attitudes toward Contact	3.7	3.0-4.5	3.5	3.0-4.4	3.9	3.2-4.5	3.5	3.0-4.3
Intergroup Conflict	1.8	1.0-2.2	1.8	1.0-2.8	1.7	1.0-2.8	1.9	1.5-2.0
N	33		56		69		18	

TABLE B.1:
VARIABLES WITHIN CONTEXTUAL SUBSETS
(CONT'D)

	Southern Schools		Non-South Schools		Upper-South Schools		Deep-South Schools	
	Mean	Range	Mean	Range	Mean	Range	Mean	Range
School Black Percentage	41.5%	10.9-99.1%	35.4%	3.2-89.5%	36.3%	10.9-80.9%	49.1%	20.3-99.1%
School SES	16.3	11.2-20.6	17.3	14.1-23.0	17.0	13.8-20.6	15.3	11.2-19.4
School Size	466.4	131-878	415.6	144-1,105	423.9	131-744	477.0	191-1,105
Ruralism	14,277.6	355-228,251	8,198.5	414-44,060	14,906.3	355-228,251	15,047.3	1,428-65,180
Region								
Sub-region	DS=22							
Staff Racial Composition	31.9%	4.8-78.9%	26.6 %	2.6-100%	25.4%	2.6-58.3%	38.6%	16.7-78.9%
Black Busing	24.2	0-100%	42.4%	0-100%	22.5%	0-100%	26.9%	0-94.4%
Classroom Resegregation	12.4%	2.2-33.2%	12.8%	2.6-38.1%	11.3%	5.1-22.2%	14.4%	2.2-38.1
Attitudes toward Desegregation	4.9	4.0-7.7	4.4	3.4-5.8	4.7	4.4-7.5	5.1	4.0-7.7
Unfriendliness toward Blacks	3.7	2.6-4.4	3.7	2.0-4.2	3.6	2.0-4.3	3.9	2.7-4.4
Attitudes toward Contact	3.7	3.0-4.5	3.6	3.1-6.0	3.6	3.0-4.5	3.9	3.0-4.2
Intergroup Conflict	1.8	1.0-2.8	1.8	1.0-2.5	1.9	1.0-2.8	1.6	1.0-2.2
N	52		37		30		22	

TABLE B.2:
VARIABLES WITHIN CONTROL-RELEVANT SUBSETS

	Low Staff Racial Composition		High Staff Racial Composition		Low Classroom Resegregation		High Classroom Resegregation	
	Mean	Range	Mean	Range	Mean	Range	Mean	Range
School Black Percentage	27.9%	3.2-61.0%	51.9%	16.9-99.1%	34.2%	3.2-99.1%	45.4%	3.2-99.1%
School SES	16.6	12.3-23.0	16.6	11.2-21.0	17.1	11.2-23.0	16.4	12.3-20.6
School Size	460.4	355-1,105	427.9	131-878	461.6	195-1,105	416.8	131-849
Ruralism	13,102.1	970-44,060	11,564.4	355-228,251	10,386.3	970-65,180	15,886.8	355-228,251
Region	S=13		S=28		S=21		S=22	
Sub-region	DS=5		DS=14		DS=8		DS=12	
Staff Racial Composition	17.4%	2.6-27.3%	42.8%	28.6-100%	26.1%	2.6-100%	35.0%	9.7-75.4%
Black Busing	36.1%	0-100%	30.0%	0-100%	35.8%	0-100%	25.7%	0-100%
Classroom Resegregation	10.8%	2.6-38.1%	14.6%	2.2-33.2%	8.3%	2.2-12.6%	21.6%	12.7-38.1%
Attitudes toward Desegregation	4.6	4.2-7.7	4.9	4.0-7.7	4.7	4.0-7.6	4.8	4.1-7.7
Unfriendliness toward Blacks	3.6	2.5-4.3	3.7	2.0-4.4	3.7	2.1-4.3	3.8	2.0-4.4
Attitudes toward Contact	3.5	3.0-4.1	3.8	3.2-4.5	3.6	3.0-4.3	3.6	3.0-4.5
Intergroup Conflict	1.8	1.0-2.4	1.8	1.0-2.8	1.7	1.0-2.6	1.8	1.0-2.8
N	43		46		59		30	

TABLE B.2:
VARIABLES WITHIN CONTROL-RELEVANT SUBSETS
(CONT'D)

	Low Low Black Busing		High Black Busing	
	Mean	Range	Mean	Range
School Black Percentage	42.8%	5.6-99.1%	35.1%	3.2-80.1%
School SES	15.8	11.2-22.8	17.4	14.5-23.0
School Size	464.7	131-1,105	410.9	191-940
Ruralism	13,373.4	355-228,251	11,996.6	1,245-6,5180
Region	S=27		S=13	
Sub-region	DS=11		DS=6	
Staff Racial Composition	30.6%	3.7-78.9%	30.0%	2.6-100%
Black Busing	4.1%	0-31.6%	74.6%	33.3-100%
Classroom Resegregation	13.4%	2.2-38.1%	11.8%	2.6-31.4%
Attitudes toward Desegregation	4.8	4.1-7.7	4.7	4.0-7.7
Unfriendliness toward Blacks	3.7	2.0-4.3	3.6	2.3-4.4
Attitudes toward Contact	3.9	3.4-4.5	3.6	3.0-4.2
Intergroup Conflict	1.7	1.0-2.4	1.7	1.0-2.8
N	53		36	

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